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ABSTRACT

Reviewed in the third of seven related documents are resources and research on physical education, recreation, and sports for hearing impaired persons. An annotated list of resources is supplied for each of the following topics: integration of the hearing impaired into regular physical education and recreation programs, physical education and motor development, recreation, art, dance, drama, music, sports, and swimming. Also included are descriptions of 17 programs for the hearing impaired and 13 related audiovisual materials. Reprints of 10 articles on such subjects as teaching swimming to the deaf complete the document. (CL)

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For

Individuals With Hearing Impairments

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PHYSICAL EDUCATION, RECREATION AND SPORTS

FOR

INDIVIDUALS WITH HEARING IMPAIRMENTS

June 1976

Prepared and Distributed by: Physical Education and Recreation for the Handicapped: Information and Research Utilization Center (IRUC), 1201 Sixteenth Street, N. W., Washington, D. C., 20036

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TABLE OF CONTENTS

	Page
Foreword	v
Hearing Impairments: An Overview	1
Resources	6
Integration of Hearing Impaired Persons into Regular Physical Education and Recreation Programs	13
Resources	13
Physical Education and Motor Development	19
Resources	21
Recreation	31
Resources	31
Art	37
Resources	37
Dance	41
Resources	41
Drama	43
Resources	43
Music	47
Resources	47
Sports	51
Reprint, "Hey Coach", Lexington School for the Deaf	53
Resources	55
Swimming	59
Resources	59
Program Descriptions	63
Resources	63
Resource/Personnel Contacts	69
Audiovisual Materials	71
Films	71
Television Programs	75
Record	75
Equipment	75

Reprints..... 77
1976 Directory of National Organizations of and for the Deaf, Gallaudet College Alumni Association..... 77
The Manual Alphabet, National Association of the Deaf..... 78
Activities for Preschool Children selected from The John Tracy Clinic Correspondence Course for Parents of Preschool Deaf Children, The John Tracy Clinic..... 79
Learning to Talk While Developing Motor Skills, Alicita Hamilton, Journal of Health, Physical Education, and Recreation..... 107
Teaching Physical Education in Schools for the Deaf, Shirley A. Berges, Journal of Health, Physical Education, and Recreation..... 108
Introduction to Swimming for the Deaf, Louise Keffer, The Best of Challenge, Volume 1..... 111
The Deaf Student in Physical Education, Shirley A. Berges, Journal of Health, Physical Education and Recreation..... 113
XII World Games for the Deaf, Lou Pennella, Journal of Health, Physical Education, and Recreation..... 115
Status of Physical Education for the Hearing Impaired, Peter R. Wisher..... 117
Selections from 95 Hazards of Deafness, Roy K. Holcomb..... 121

FOREWORD

This publication was prepared by Kristina Gilbertson, Information and Materials Assistant in Physical Education and Recreation for the Handicapped: Information and Research Utilization Center (IRUC). She collected, reviewed, evaluated, collated, and assembled materials as well as wrote annotations, introductory sections, and other narrative segments of this publication.

Historically some individuals with various kinds and degrees of hearing impairments have participated in regular physical education, recreation, sport, and related activity programs. Others have taken part in special programs and activities involving only those with hearing impairments. Still others have participated little in activities of this type. As a result, requests for assistance and materials dealing with this population in these areas have not been as great as for individuals having other sensory, physical, or mental conditions. However, changes in these patterns have been noted recently with increasing numbers of multiple impaired individuals with a hearing difficulty as one of the conditions. Emphasis on having individuals with various impairments, disabilities, and handicaps participate in regular programs and activities of all types is resulting in sudden interest in these program areas and new demands for information, materials, and services.

As one step in meeting these needs, this book has been added to IRUC publications. Regardless of an individual's background or experience information of interest and value is contained in this publication. Certain sections can be helpful to individuals with background and experience in working with hearing impaired persons but none in physical education, recreation, or related areas. Other sections are designed for persons with background and experience in activity areas but not with hearing impaired persons. Consequently, readers with neither background nor experience in either area will find most sections useful and beneficial.

It is acknowledged that hearing impairment sometimes accompanies such other impairments as blindness or mental retardation. However, due to limitations in time and space as well as to the existence of other sources of reference in these areas, information on multiple handicaps involving hearing impairment is beyond the scope of this publication.

Basic information is contained about a variety of topics and areas such as hearing impairment, motor development, recreation, art, drama, and swimming. Following general discussions of each of these areas is information designed to provide assistance for identifying and locating resources to use in initiating or enriching programs. Information is provided about ongoing programs, involved personnel, and appropriate audiovisual materials. In this one volume is a wealth of information and material to assist anyone interested in these areas, regardless of background and experience.

Special thanks and appreciation are extended to Kris Gilbertson for her diligent efforts that resulted in this fine and needed publication.

Those who gain most from her efforts will be countless unnamed hearing impaired children, youth, adolescents, and adults who have new, exciting, and challenging experiences through physical education, recreation, sports, and related areas. Many of these opportunities would not have been available were it not for stimulation engendered by this publication.

Julian U. Stein, Director
IRUC and AAHPER Consultant
Programs for the Handicapped

HEARING IMPAIRMENTS: AN OVERVIEW

Although the term deaf is often used to describe persons with partial as well as total hearing loss, a definite distinction should be made between the terms hard-of-hearing and deaf. The following general definitions, developed by the Ad Hoc Committee to Define Deaf and Hard of Hearing will be employed throughout this publication.

> Hearing impairment--a generic term indicating a hearing disability which may range in severity from mild to profound; it includes the subsets of deaf and hard-of-hearing:
>
> > A deaf person is one whose hearing disability precludes successful processing of linguistic information through audition, with or without a hearing aid.
> >
> > A hard-of-hearing person is one who, generally with the use of a hearing aid, has residual hearing sufficient to enable successful processing of linguistic information through audition (22).

However, it has sometimes been difficult to determine whether the literature is referring to totally deaf persons or to the larger group of hearing impaired persons. Although this guide is being written for both groups, it should be recognized that the same methods do not always work equally as well with both populations. Richard Rosenthal, a writer who became hard-of-hearing during World War II, expresses one aspect of difference between the two groups in this statement:

> "While the deaf are the most cohesive minority group in the United States--with their own language, clubs, churches, and even Olympic Games, the hard-of-hearing are rarely fraternal...Hard-of-hearing people do not socialize or form groups to meet with each other and discuss mutual experiences, as do other people with a common difficulty..." (15)

However, Mindel and Vernon (18) point out that hard-of-hearing children will still experience some sense of isolation in situations where they cannot fully participate in conversation. Group interactions or areas with prominent background noises can make communication more difficult.

Loss of hearing is the most prevalent health problem in the United States (27). Of the 13.4 million hearing impaired people in the U. S., 1.8 million are deaf (27). About three million, or between three and one half to five percent of the school age children in the United States have hearing loss (29).

Hearing impaired children attend private and state operated residential schools and public and private day schools, a complete listing of which can

be found in the April 1976 American Annals of the Deaf Directory of Programs and Services (28). Primary methods of teaching hearing impaired persons to communicate at present include oralism and total communication. Oralism is a philosophy which stresses that all communication with deaf children be done exclusively by means of speech and speech reading. Advocates of this form of communication contend that the use of fingerspelling and the language of signs will retard or prevent the deaf child's acquisition and development of natural language. They also insist that all deaf children can acquire good oral skills (15).

The term manualism describes a system of communication which stresses use of the manual alphabet (fingerspelling) and the language of signs as a means of instruction and as a form of communication. As no educational programs in the United States practice manualism as it was begun in the nineteenth century, the term is outdated, and often used mistakenly in describing a communication program that uses manualism in any form (15).

Total communication is a theory of communication that incorporates the concepts of oralism and manualism into a single, all-inclusive process. The right of teachers and deaf students to use all forms of communication to develop language competencies is stressed. These forms include natural gestures, hearing-aids, speech, lipreading, fingerspelling, formal signs, reading and writing. Advocates of this method maintain that it provides the greatest opportunity for every deaf child to develop his/her maximum potential in language acquisition and speech development (15). A full debate on the merits of oralism vs total communication is beyond the scope of this publication; however, it is recommended that unless one is working in a strictly oral setting, every available means of communication be used.

Authorities agree that the age of onset of deafness is important in determining what effect the impairment has on an individual's total development. If the child lost hearing before developing speech and language patterns, learning will be more difficult than if the child had normal hearing long enough to develop these patterns.

The following chart describes some of the various types and causes of hearing impairment. It is important to note that some types of hearing losses contain both conductive and sensorineural aspects; these are called mixed losses.

Type	Conductive	Sensorineural	Central
Definitions	Those conditions arising from some mechanical block in transmission of sound in the outer or middle ear (outside the central nervous system).	Conditions arising from some damage to the neural pathways between the inner ear and the brain: A. Congenital--nerve injured or destroyed before or during birth. B. Acquired or Adventitious--hearing loss occurring after birth.	Any interference with sound transmission from the brain stem to and including the auditory cortex.
Causes	A physical obstruction to the conduction of sound waves to the inner ear, such as impacted wax or a middle ear infection. The major cause of conductive hearing loss related to middle ear pathology is otitis medea, an inflammation or infection within the middle ear.	A. Genetic factors, the Rh blood factor, premature birth, and diseases such as German Measles, mumps, or influenza which the mother contracted during early pregnancy. B. Complications of childhood diseases such as spinal meningitis, encephalitis, scarlet fever, or influenza, or accidents which damage the nervous system which affects the ability to hear.	Diseases of the brain which affect the auditory pathway, for example, cerebral tumor or abscess, arteriosclerosis, cerebral hemorrhage, and multiple sclerosis.
Treatment Prognosis	Although hearing may be seriously impaired, deafness is never total in this type of impairment. A hearing aid is very useful in improving a hearing loss due to conduction difficulties.	Usually a more serious condition and less likely to be improved by medical treatment. Adequate treatment often involves educational as well as medical intervention.	Patient can "hear" but does not understand what he hears. This type of deafness is generally treated as a form of receptive language disorder (aphasia).

It is important to be aware that deaf children do not necessarily learn at the same rate as hearing children (18). Studies of educational achievement have shown deaf persons to be educationally retarded from three to five years (32). Language and communication skills fare worse than motor and computation skills. However, these differences can be accounted for in terms other than differences in inherent intellectual capacity. Society has failed to find alternative ways of educating deaf persons.

While acknowledging the inherent danger in making generalizations about a particular population, it is necessary to have some knowledge of the characteristics of a population in order to understand and meet their cognitive, social and motor needs. For the sake of convenience, some of these characteristics of hearing impaired persons have been summarized in the following chart.

Characteristic	Program Planning/Leadership Considerations
Balance is often poor.	Limit climbing and high apparatus work. Encourage low level balance exercises and stunts to develop skill and confidence.
Children may have fears or inhibitions about moving freely in space.	Movement exploration techniques allow participants to experiment and solve movement problems on their own. Moving at their own pace gives children more opportunities for success.
Children learn mainly by seeing.	Use visual aides such as blackboards, films, slides. Circle games enable children to follow movement of other children. Demonstrate frequently. Place child so the face of the instructor or leader can be seen at all times.
Children may have anxieties and frustrations due in part to past errors or lack of participation and in part to impatience with lengthy explanations and demonstrations (18). They tend to express frustration physically, often through temper tantrums (18).	Avoid lengthy explanations and constant changes in rules. Stress good sportsmanship through cooperative play.
Deaf children have had fewer opportunities to learn from certain kinds of early experimental play with other children (18) due to difficulties in communications. They may be reluctant to enter group settings.	Children may need to be taught how to play with others. Provide opportunities for and instruction in social interaction early in life through group games and cooperative play with other students.

Resources

1. Altshuler, Kenneth A. The social and psychological development of the deaf child: problems, their treatment and prevention. American Annals of the Deaf, 120(5):509-512, October 1975.

   This article is a chapter in the book, Deafness in Infancy and Early Childhood (P. Fine, editor, New York: Med Com Press, 1974). Described are pathways involved in normal development and how they may be interfered with by the absence of audition and by family responses in the case of a deaf child.

2. Beadle, Kathryn R., Ph.D. Communication disorders--speech and hearing, in Bleck, Eugene E. and Donald Nagel, editors, Physically Handicapped Children: A Medical Atlas for Teachers. New York: Grune and Stratton, 1975. 304 pp.

   Fundamental medical facts including medical description of hearing disorders--hearing mechanisms, types of hearing losses, incidence, causes, treatment approaches, and implications for the educator.

3. Beasley A., C. Bogner, and H. Lightel. Suggested readings for parents of preschool deaf children. American Annals of the Deaf, 117 (2):431-437, August 1972.

   This list of readings was compiled from a national survey asking parents which readings had been most helpful to them, and a review of available literature in the field published since 1967. Each reference is briefly described and the address where it can be obtained is provided. Materials are grouped under the following subject headings: Parent and Child Interaction, Parent to Parent Discussion, Communication, Education, Diagnosis, Life Problems Discussed by Deaf Adults, Books and Pamphlets.

4. Bleck, Eugene E., and Donald A. Nagel, editors. Physically Handicapped Children: A Medical Atlas for Teachers. New York: Grune and Stratton, 1975. 304 pp.

   Fundamental medical facts on a wide range of handicapping conditions in children are presented in this medical atlas. Each chapter, approximately ten pages in length, includes a medical description of the condition, incidence, causes, treatment approaches, and implications for the educator. The following conditions are covered: amputations, arthrogryposis, asthma, cerebral palsy, communication disorders, convulsive disorders, cystic fibrosis, dermatomyositis and polymyositis, diabetes, Friedreich's ataxia, heart disease, hemophilia, Duchenne muscular dystrophy, myelomeningocele/meningocele/spina bifida, temporary orthopedic disabilities, osteogensis imperfecta, traumatic paraplegia and quadriplegia, poliomyelitis, juvenile rheumatoid arthritis, sickle cell disease, spinal muscular atrophy, and visual disorders. In addition, chapters on anatomy and motor development in infancy provide basic background information. This atlas was written for teachers of physically handicapped children and for students.

5. Bloom, Freddy. Our Deaf Children. Washington, D.C.: Alexander Graham Bell Association for the Deaf (Headquarters: The Volta Bureau, 1537 35th Street, N.W., 20007), 1963. 152 pp.

The mother of a severely deaf child writes about the process of dealing with the handicap. From explanations of deafness and the medical aspects of the impairment, the author moves to a discussion of the role of a deaf child's parents and the importance of auditory training. Suggestions for giving deaf children every opportunity to communicate are offered, along with advice on discipline and other matters related to dealing with young deaf children. Other chapters are devoted to schools, multiple handicaps, and the family.

6. Bibliographies are available from the Center for Hearing, Speech and Disorders of Human Communication, 310 Harriet Lane Home, Johns Hopkins Medical Institutions, Baltimore, Maryland, 21205.

7. Costello, Patrice M. Educational and social factors in the rehabilitation of hearing disabilities, in Cobb, Aldrena Beatrix, Medical and Psychological Aspects of Disability. Springfield, Illinois: Charles C. Thomas, 1973. pp. 303-328.

This chapter provides a general background on diagnosis, patterns of hearing loss, speech development sequence, and the influence of native ability and educational level on the prognosis for successful rehabilitation of the deaf client. The role of training for communication through speech reading, auditory training, and the language of signs in the potential for success is explored. Problems in psychosocial development of hearing impaired persons are suggested.

8. Davis, H., and S. R. Silverman, editors. Hearing and Deafness. New York, New York: Holt, Rinehart, and Winston, 1970. Third edition.

9. Demeyere, Patrick Firmin. Essential factors in the occurrence and the mitigation of occupational deafness. Master's thesis. (School not available), 1969. 168 pp.

Research on the occurrence of occupational deafness has been limited to fragmented contribution by a few disciplines, such as acoustics, otology, and ergonomics. An investigation model was developed on the basis of the interaction between management, the labor force, and the authorities who are responsible for occupational health. This triangular basis was expanded to five levels; i.e., the individual, employment, state, national, and international levels. Five more indicators were introduced: participation, roles, general nontechnical causes, specific nontechnical causes, and communication. A series of factors was discussed and proposed for further investigation: conceptualization, responsibility taking, priority to action, standardization, cost to management, employer-employee relationship, interpretation of the work condition by the employee, and contribution of the state health authority.

10. Greenberg, Joanne. In This Sign. New York, New York: Rinehart and Winston, 1970.

This novel tells the story of a deaf couple who met at a residential school in the early decades of the 1900's. Their struggle to survive in a hearing world during the Depression provides insight into some of the problems encountered by hearing impaired persons.

11. Hardy, Richard E., and John G. Cull. Educational and Psychosocial Aspects of Deafness. Springfield, Illinois: Charles C. Thomas, 1974. 191 pp.

Each of the twelve chapters in this book was written by a different authority. An overview of many areas concerned with deafness is presented.

12. Information Sources in Hearing, Speech, and Communication Disorders. Baltimore, Maryland: Information Center for Hearing, Speech, and Disorders of Human Communication, The Johns Hopkins Medical Institutions (310 Harriet Lane Home, 21205), 1970.

Existing information sources in communication disorders have been identified and compiled in this guide for scientists, clinicians, teachers, students, librarians, and administrators. The book can serve the user in the following ways: as a directory to services, as a definition of the field, and as an information referral network.

13. Jacobs, Leo. The community of the adult deaf. American Annals of the Deaf, 119(1):41-46, February 1974.

An average adult deaf community is depicted; the common impairment and interests of deaf people draw them together in a close-knit community with the advantages and disadvantages of a small town even when they live in a large urban area. Since the telephone is not the convenient and reliable instrument with deaf persons that it is with hearing, deaf people spend more time driving around to pay social calls on friends. The author states that the average deaf family home usually shows much more activity than their hearing neighbors both in terms of visitors and more frequent invitations out. Organizational patterns are also described and mention is made of several Federal programs generated by these organizations.

14. Jordan, John L. Attitude-Behavior Scale: Deaf. (Unpublished instrument.) East Lansing, Michigan: Michigan State University, 1972. 31 pp.

The Attitude-Behavior Scale: Deaf is an instrument designed to measure the attitudes of an individual toward the deaf. The instrument is based on the Guttman Facet Theory and is designed primarily to show the utility of the Facet Theory approach to attitude scale construction. The instrument consists of 137 items which ask the individual to give his opinion on other people's beliefs about the deaf, his own beliefs toward the deaf, and his own projected actions toward the deaf. Other items deal with actual experiences the subject

has had with deaf people and personal data about the individual. Sample items are: In respect to people who are deaf, do you believe that it is usually right or usually wrong (to take a deaf child on a camping trip with normal children, to allow a deaf child to visit overnight with a child who is not deaf, to be a soldier in the Army); In respect to a deaf person, would you (share a seat on a train for a long trip, live in the next door house or apartment, extend an invitation to a party at your house). The instrument is self-administered. Cross-cultural information on the instrument can be found in "Facet Theory and Cross-cultural Research Methodology", a paper presented by the author at the First International Conference of the International Association of Cross Cultural Psychology, August, 1972, Hong Kong. A copy of this paper and the instrument are available from the author.

15. Katz, Lee, Steve L. Mathis, III, and Edward C. Merrill, Jr. The Deaf Child in the Public Schools: A Handbook for Parents of Deaf Children. Danville, Illinois: The Interstate Printers and Publishers, Inc. (61832), 1974. pp. 79-89.

A listing of some of the "better recognized national organizations concerned with deafness" (p. 79) is presented along with Federal agencies that might be helpful.

16. Ling, D. Recent developments affecting the education of hearing-impaired children. Public Health Reviews, 4(2):117-152, April-June 1975.

Mild and moderate conductive hearing loss, commonly encountered among children in regular schools, can cause marked educational problems, but the most severe deficits are met among children with severe sensorineural deafness. In spite of the controversy raging for and against manual communication as a means of teaching hearing impaired children who require special education, many advances have been made. These include new approahces to language acquisition, emphasis on early treatment, more systematic use of hearing aids, development of educational services leading to regular class placement, and new subject teaching techniques. However, there is a need for more and better teacher training.

17. Meadow, Kathryn P. The deaf subculture. Hearing and Speech Action 43(4):16-18, July/August 1975.

Meadow postulates the existence of a subculture among persons who are profoundly deaf, and presents a number of distinct characteristics to illustrate its existence. These include a high incidence of in-marriage, a number of voluntary athletic, social and religious organizations, the tradition of residential schooling in state-operated schools for the deaf, news broadcasts in sign language, and American Sign Language which is used at least part of the time by 75 percent of deaf adults in the United States. The period in the life cycle during which sign language is learned is considered by most deaf persons to be the time at which they become a part of the deaf community. Several possible subgroups are described.

18. Mindel, Eugene D., and McCay Vernon. They Grow in Silence: The Deaf Child and His Family. Washington, D. C.: National Association of the Deaf, 1971. $6.95.

The authors discuss psychodynamics surrounding the diagnosis of deafness. Some of the areas discussed are: parental reaction upon discovering the deafness, causes of deafness, communication, vocational, educational, and psychological outcomes of deafness.

19. Moores, Donald F., and others. Evaluation of Programs for Hearing Impaired Children: Report of 1973-74 Research Report No. 81. Minneapolis, Minnesota: Research, Development, and Demonstration Center in Education of Handicapped Children, Minnesota University, 1974.

Presented is the fourth year report of a four-year longitudinal study comparing effectiveness of seven preschool programs for deaf children. Schools are seen to emphasize either an oral-aural, Rochester (Oral-aural plus finger spelling), or total communication method of instruction. Included in the report are a brief review of literature on educational programs for the deaf, summaries of earlier yearly reports, descriptions of the programs and subjects studied, project findings, and appendixes (such as a classroom observation schedule). Among findings reported are: the subject's scores on the Illinois Test of Psycholinguistic Abilities (ITPA) were almost identical to the scores of normal hearing children; the subject's scores on the Metropolitan Achievement Tests Primer Battery were equal to those of hearing children in reading and were lower in arithmetic; that scores on a Receptive Communication scale showed sound alone to be the least efficient communication mode (44 percent) rising to 88 percent when speechreading, fingerspelling, and signs were added; that improved scores on a test for understanding the printed word (76 percent as compared to 56 percent in 1973 and 38 percent in 1972) reflected increasing emphasis on the teaching of reading; and that deaf children who have been "mainstreamed" do not differ in intelligence, reading, arithmetic achievement, ITPA scores, or overall communication abilities.

20. Pang, Henry, and Carol Horrocks. An exploratory study of creativity in deaf children. Perceptual and Motor Skills, 27(3):844-846, 1968.

Eleven deaf children of average intelligence at a midwestern school for the deaf were administered the Barron Welsh Art Scale and the Torrance Figural Tests of Creative Thinking to measure creative abilities. They scored lower than other subjects as it appears that they were not interested in the abstract figures but were more oriented toward the concrete. They scored approximately the same on the Torrance Dimensions as a group of normally hearing subjects but were higher on elaboration. Possibly the tendency of the deaf to be concerned with observed data aided them in obtaining high elaboration scores. In conclusion, because of the small sample, the findings must be held cautiously. Clearly, a larger sample is required. Creativity among deaf persons as well as other types of handicapped persons should be thoroughly explored.

21. The Rand Corporation strikes again. Hearing and Speech Action, 43(1): 16, January/February 1975.

Summarizes findings of Improving Services to Handicapped Children: Summary and Recommendations by Garry D. Brewer and James S. Kakalik, prepared by the Rand Corporation for the U. S. Department of Health, Education and Welfare. "In the United States among youth under age 21 there are 490,000 with serious hearing impairment (including 50,000 deaf)."

22. Report of the ad hoc committee to define deaf and hard-of-hearing. American Annals of the Deaf, 120(5):509-512, October 1975.

General definitions for the terms deaf, hard-of-hearing, and hearing impairment are given.

23. Robinson, Luther D. A program for deaf mental patients. Reprinted from Hospital and Community Psychiatry, n.d.

A special program for the deaf at St. Elizabeth's Hospital (Washington, D. C.) was begun in 1963 when the author began conducting group psychotherapy sessions for a few chronically hospitalized deaf patients. Since then the program has been enlarged to include such activities as psychodrama and dance therapy; now it occupies a separate facility and has a full-time staff. The program has also provided training for hospital staff members, deaf college students, nursing students, professional workers with the deaf, volunteers, and others.

24. _____. Mental Health Services to Deaf People. Paper presented at the National Rehabilitation Association Meeting in San Juan, Puerto Rico, September 26, 1972.

Although hearing impaired people encounter mental health problems similar to hearing persons, communication difficulties make these mental health problems difficult to detect and treat. Services are gradually developing; St. Elizabeths Hospital has carried out a mental health program of services, training, research, and consultation to organizations and agencies on local, state, and national levels. Although this program was begun independently, it recognizes a state of interdependence with other organizations serving hearing impaired individuals.

25. Rosenthal, Richard. The Hearing Loss Handbook. New York: St. Martin's Press, 1975. 198 pp.

26. Rossett, Allison. Parenting of the preschool exceptional child. Teaching Exceptional Children, 7(4):118-121, Summer 1975.

Described is an educational program for parents of preschool deaf children which uses open ended visuals to stimulate group discussions of concerns about deafness and of strategies for facilitating the child's development and improving parent-child relationships.

27. Schein, J. D., and M. T. Delk. The Deaf Population of the United States. Silver Spring, Maryland: National Association of the Deaf, 1974.

28. Schools and classes for the deaf in the United States. American Annals of the Deaf, Directory of Programs and Services, 121(2):72-143, April 1976.

29. Standard Reference Library, 1970 Yearbook. pp. 198-199.

30. Storrs, Lloyd A. Rehabilitation medical aspects of hearing disorders in Cobb, Aldrena Beatrix, Medical and Psychological Aspects of Disability. Springfield, Illinois: Charles C. Thomas, 1973. pp. 295-302.

The anatomy and physiology of the ear along with the pathology of hearing, and treatment of hearing loss are discussed in terms the lay reader can understand.

31. Switzer, Mary E., and Boyce R. Williams. General article: life problems of deaf people: prevention and treatment. Archives of Environmental Health 15(249-246), August 1967.

The authors define "deaf people" and then outline six major problems which affect them. Problems described are communication, education, subculture, employment, public service, and paternalism.

32. Telford, Charles W., and James M. Sawrey. The Exceptional Individual. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1972.

33. Watson, Douglas, editor. Readings on Deafness. New York, New York: Deafness Research and Training Center, New York University, May 1973. $2.00.

Topics in this set of readings include the following: (1) the experience of deafness; (2) notes on deaf education; (3) improving the leivery of rehabilitation services; and (4) the deaf community.

34. Wright, David. Deafness. New York, New York: Stein and Day, 1969.

This book is the autobiography of a poet, writer, anthologist and translator of scholarly works who has been totally deaf since the age of seven. The second half of the book details the history of education for deaf persons.

ADDENDUM

Charlip, Remy, Mary Beth, and George Ancona. Handtalk: An ABC of Finger-Spelling and Sign Language. New York, New York: Parents Magazine Press, 1974. $5.95.

This book is composed of large color photographs illustrating the manual alphabet and some signs.

O'Rourke, T.J. A Basic Course in Manual Communication. Silver Spring, Maryland: National Association of the Deaf, 1973. $5.20.

Beginning sign language book containing illustrations of 737 signs and including practice exercises.

INTEGRATION OF HEARING IMPAIRED PERSONS INTO REGULAR PHYSICAL EDUCATION AND RECREATION PROGRAMS

In his survey of all the residential schools, day schools, and day classes listed in the American Annals of the Deaf 1975 Directory of Programs and Services, Craig (4) noted the following trends in mainstreaming and partial integration of deaf with hearing students:

- An increase in the number of integrative programs.
- Development of selected components of the programs.
- Inclusion of mainstreaming or partial integration in administrative planning for the education of deaf students.

Six of the 14 listings in this section are concerned with methods and techniques of educating hearing impaired children in regular schools and classes (1,3,5,6,8,9). But not all educators agree that mainstreaming can provide the best education for deaf children. Brill (2) concludes that the typical deaf child is not best placed in a regular classroom, and that the prelingually deaf child requires a very special educational program. McKay (8) cautions that certain unplanned efforts at mainstreaming deaf children can result in irreversible educational and psychological damage. In their search of the literature, Craig and Salem (5) cited two studies describing attempts to integrate deaf with hearing students for social and recreational purposes. It was noted that before being integrated on a part-time basis, deaf youth lacked some of the social skills and independence of their hearing counterparts; after integration, they improved in these skills. These studies give credence to the concept that social and developmental skills can be the major outcome of integration and that positive change in social behavior can result.

Three studies exploring the effects of mainstreaming and integration of deaf and hard-of-hearing persons with hearing individuals are detailed in the following listing (7,10,11). Further research on the outcomes of integration and mainstreaming programs is needed.

Resources

#1. Birch, Jack W. Hearing Impaired Children in the Mainstream. Minneapolis, Minnesota: Leadership Training Institute/Special Education, University of Minnesota, 1975. 106 pp.

Hearing impaired children are increasingly being educated in regular schools and classes. This book is intended to provide teachers,

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#Available from CEC Information Services, 1920 Association Drive, Reston, Virginia, 22091. (Use Number when ordering; postage is extra.)

supervisors, and administrators with practical ideas and methods that have been used successfully by educators who have hearing impaired children in their classes. To this end, chapters deal with such basic considerations as terminology (what is mainstreaming? who are the hearing impaired?) and the influence of hearing impairment on education of children and youth. Other chapters concern characteristics and principles of successful mainstreaming, with specific suggestions for teachers and administrators. Fourteen programs in different settings illustrative of mainstreaming hearing impaired children are detailed.

+2. Brill, Richard G. Mainstreaming: format or quality? American Annals of the Deaf, 120(4):377-381, August 1975.

Brill voices a rather strong statement against the mainstreaming of deaf children as he analyzes the factors involved in determining the quality of education of deaf children that may result from the mainstreaming movement. Brill concludes that the typical deaf child is not best placed in a regular classroom, but that, instead, the prelingually deaf child requires a very special educational program.

+3. Connor, Leo E. Mainstreaming a special school. Teaching Exceptional Children, 8(2):76-80, Winter 1976.

The Lexington School for the Deaf (Jackson Heights, New York) is an example of a special school well integrated into the surrounding community. Community cooperation combined with teaching expertise creates an atmosphere of acceptance and understanding which benefits the severely deaf students at Lexington, children in surrounding schools, and the entire community as well. During the 1968-1975 period the following elements have contributed to a systematic mainstreaming effort: community center, volunteers, transfers, resource center, enrollment of normal students, and staff involvement.

+4. Craig, William N., James M. Salem, and Helen B. Craig. Mainstreaming and partial integration of deaf with hearing students. American Annals of the Deaf: Directory of Programs and Services, 121(2):63-68, April 1976.

These data represent responses to questionnaires sent by the American Annals of the Deaf to all of the residential schools, day schools, and day classes listed in the 1975 Directory of Programs and Services. Answers to questions in the following areas were sought: number of integrative programs, student participation, program components, staff participation, evaluation procedures, and school administrative procedures. Responses were compiled separately for the residential schools, day schools, and day classes; response rates were 87.50 percent, 71.43 percent and 39.95 percent, respectively. The data are

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subject to limitations imposed by the mailed questionnaire technique and by the great diversity in structure shown by these programs. However, the following trends can be seen: a growth in the number of integrative programs, development of selected components of the programs, and the inclusion of mainstreaming or partial integration in the administrative planning for the education of deaf students.

5. Craig, William N., and James M. Salem. Partial integration of deaf with hearing students: residential school perspectives. American Annals of the Deaf, 120(1):28-36, February 1975.

Residential school faculties have become increasingly aware of the possibilities for integrating deaf with hearing students. Potentially, deaf students should improve in such areas as communication capabilities, social awareness, academic skills and vocational competency. The development of partial integration in twenty-two residential schools, and the interest shown by seventeen additional residential schools, strongly suggest that at least some of the objectives are being met.

+6. Integrating Persons with Handicapping Conditions into Regular Physical Education and Recreation Programs. Washington, D. C.: American Alliance for Health, Physical Education and Recreation, December 1974. $2.00. (Developed and printed as a service of the Information and Research Utilization Center in Physical Education and Recreation for the Handicapped Project OEG-0-72-5454-233563, Bureau of Education for the Handicapped, U. S. Office of Education, Department of Health, Education, and Welfare.

An analysis of selected research and program literature is presented concerning integrating or mainstreaming individuals with handicapping conditions into physical education, recreation and related programs. The analysis provides state-of-the-art statements, (1) integration of students with various handicapping conditions into regular public school physical education, athletic and intramural programs, (2) integration or mainstreaming of ill, impaired and disabled individuals of all ages into community recreation programs, (3) integration of handicapped campers into ongoing camp situations originally designed for nonhandicapped children and youth, (4) integration of visually impaired individuals into existing physical education and recreation programs, (5) curriculum or model program descriptions for integrating handicapped children into the regular classroom situation with provisions for physical and/or recreational activities, and (6) attitudes on the part of the handicapped participant, his peers and related program personnel in integrated physical education and recreation programs. Each statement is followed by discussion and future needs statement subsections. A list of references and selected audiovisual aids follow the analysis section.

+Available from Physical Education and Recreation for the Handicapped: Information and Research Utilization Center, 1201 16th Street, N. W., Washington, D. C., 20036.

7. Mallenby, Terry W. The effect of extended contact with "normals" on the social behavior of hard-of-hearing children. Journal of Social Psychology, 95:137-138, February 1975.

This study suggests that prolonged interaction with "normal" children can influence the social behavior of a group of hard-of-hearing children.

8. McCay, Vernon. Integration or mainstreaming. American Annals of the Deaf, 120(1):15-16, February 1975.

A system developed by R. Holcomb is compared favorably with other unplanned efforts at mainstreaming deaf children that are said to result in irreversible educational and psychological damage.

9. Nober, Linda W. An in-service program for integrating hearing impaired children. Volta Review, 77(3):173-175, March 1975.

The integration of severely hearing impaired children into regular classes in public schools places special demands on the professionals within the schools and requires extensive support from the families of the children involved. To provide materials to be used as the basis for an in-service education workshop in integration of severely hearing impaired children into the public school environment, the Northeast Regional Media Center for the Deaf developed the HI-FI Program (Hearing Impaired Formal In-Service). It is a reflection of the current legislative mandates, encouraged and supported by various national professional organizations, regarding the upgrading of educational facilities and programs for children with special needs. The program is targeted for workshops of classroom teachers and school personnel and, as such, relates directly to school district and classroom management of the hearing impaired child. Consisting of a manual, a set of transparencies, an audio cassette, and a video tape recording, the program is targeted for classroom teachers, school district personnel, and parents. Suggestions for parental input are emphasized. Copies of HI-FI are available from the National Center for Educational Media and Materials for the Handicapped, Ohio State University, Columbus, 43210.

10. Reich, Peter A., and Carol M. Reich. A Follow-Up Study of Deaf Students. Toronto, Ontario, Canada: Ontario Ministry of Education, n.d.

This project explores the degree of integration of the deaf in Ontario into the hearing community. Graduates of the Metropolitan Toronto School for the Deaf and from the Ontario Schools for the Deaf at Milton and Belleville who live in or near Metro Toronto area are being interviewed. Information is being collected on (1) the training they have received, (2) the types and extent of communication facility they develop, (3) employment profile, and (4) various indices of the extent to which they function within adult society, both hearing and deaf. Questions include leisure time activities such as going to movies, watching TV, membership in clubs, leisure reading, etc.

11. Rister, Anne. Deaf children in mainstream education. Volta Review, 77(5):279-290, May 1975.

A longitudinal follow-through study of 88 deaf children, ages 6-16, was conducted. Sixty-seven percent of responses from parents and teachers showed that preschool education had been beneficial. School placement information revealed that 62 percent of students involved attend regular classes and 38 percent are in special education classes. Achievement was reported as being adequate for 64 percent of entire group of students. Adequate achievement was reported for 6 percent of students enrolled in special education and for 81.9 percent of those in regular education classes. Copies of complete study may be obtained from author at: Speech and Hearing Institute, 1343 Moursund Street, Houston, Texas, 77025.

12. Seagle, Edward E., Jr. A study of the feasibility of integrating blind, deaf, and non-handicapped youngsters in an outdoor resident camp setting. Master's thesis. Provo, Utah: Brigham Young University, 1974. 68 pp.

Through careful analysis of related literature and a study of desired information, a questionnaire was developed and mailed to 50 camps which serve the hanidcapped within the U.S. and Canada. Thirty camps responded. The data were computerized and a frequency distribution determined to analyze the responses. It was concluded that this type of integration was feasible in terms of contributing to the welfare of all three types of children involved. The study also indicated trends in program possibilities, and outlined definite minimal requirements for leadership in the proposed setting. It was also shown that private ownership and operation was not feasible, but rather camp fees should be instituted as a means of financing.

+13. Update No. 1: Mainstreaming in Recreation, Physical Education, Special Education, and Other Community-Based Programs--Viewpoints. Washington, D. C.: Physical Education and Recreation for the Handicapped: Information and Research Utilization Center (IRUC) (1201 16th Street, N. W., 20036), January 1976.

Books, articles from journals and newsletters, and published and unpublished papers, research reports and instructional materials on mainstreaming are listed. Whenever possible a brief summary of each entry is provided.

14. Weinstein, G. W. New world of success for deaf children; success in regular classrooms. Parents Magazine, 43:66-69+, November 1968.

+Available from Physical Education and Recreation for the Handicapped: Information and Research Utilization Center, 1201 16th Street, N. W., Washington, D. C., 20036.

PHYSICAL EDUCATION AND MOTOR DEVELOPMENT

Literature reviewed for this publication revealed eight comparative studies of motor characteristics of hearing and hearing impaired children (4,5,13,14,15,16,17,27). Four of these (4,13,14,16) dealt with static and dynamic balance skills.

In comparing performance of eight-year old deaf and hearing children, Lindsey and O'Neal (13) found that deaf children failed significantly more tests on both static and dynamic balance skills than did the hearing children. But Logan found that while elementary school children scored significantly poorer than hearing children in all six tests of balance ability administered to them, college students scored significantly poorer on only three of the six balance tests. She attributed this to certain factors operating in the adolescent years that allow hearing impaired subjects to compensate for the lack of auditory sensitivity in performance of balance tasks. Lindsey and O'Neal (13) found fewer than ten published studies comparing motor and balance skills of deaf children with those of hearing children. Control of such variables as age, sex, race, IQ, and etiology of deafness in these few investigations has varied to such a degree that replication studies are still needed.

Seven general texts in adapted physical education that had sections dealing with hearing impairment were reviewed (1,2,7,10,21,25,29). It was agreed that hearing impairments should impose little or no restriction on a child's physical education program. However, certain precautions may be needed depending on the type and degree of hearing impairment. General program planning and leadership considerations can be found in the chart on page 5. Specific precautions for certain conditions are summarized in the table on the following page.

Arnheim, et al. (2) note that methods for teaching activities to deaf students differ from those used to teach the hard-of-hearing. Classes composed mainly of deaf children should be limited in size from six to 12 persons in order to meet individual needs of students. Attention-getters such as waving the hands or flicking the lights on and off can be used. All children should be able to see the instructor's face in order to facilitate lip reading and facial gesture cues (2).

Condition	General Hearing Impairment	Student has Sustained Damage to Semicircular Canal	Student Wears Hearing Aid	Student has had a Fenestration Operation
Precautions	1. Boxing is usually prohibited, since blows to the head may aggravate ear damage (29). 2. Diving, skin and scuba diving, and lifesaving (except extension rescues and others which do not require sub-surface swimming) are usually contraindicated for most auditory impairments (29).	1. Should not attempt activities which require climbing on high equipment or that demand great balance skill due to poor balance and tendency to experience dizziness (10). 2. Trampoline activity can cause nausea and serious accidents (29). 3. Any tumbling which would tend to cause semicircular canal involvement should be avoided (29).	1. Leave the aid in place except during swimming and in periods of vigorous physical activity (1). 2. Starched gym clothing should not be worn as crisp fabrics can cause an annoying sound to the wearer (1). 3. A spare battery should be kept by the physical educator in case a replacement is needed (1). 4. As excessive moisture will cause the battery to corrode, the hearing aid should never be placed in grass or exposed to temperature and humidity changes (1).	1. Must wear ear plugs during cold windy weather (10). 2. Sudden movements of the head should be avoided, as they cause dizziness (10). 3. Swimming is prohibited (10).

Resources

1. Adams, Ronald C., Alfred N. Daniel, and Lee Rullman. Games, Sports and Exercises for the Physically Handicapped. Second edition. Philadelphia: Lea and Febiger, 1975.

   Auditory impairments are defined according to two classes based on the time of hearing loss. Incidence figures and treatment methods are briefly detailed. Program implications involve making sure that directions and explanations are clearly understood by the hard-of-hearing student, removal of hearing aids during strenuous physical activity and giving students partners to work with. Also included are recommended exercises for general balance, coordination, and change of direction.

2. Arnheim, Daniel D., David Auxter, and Walter C. Crowe. Principles and Methods of Adapted Physical Education. St. Louis, Missouri: C. V. Mosby, 1969.

   Some of the topics treated in the section on the deaf and the hard-of-hearing include the following: definitions, incidence of hearing loss, causes of deafness, characteristics of deaf persons and of hard-of-hearing persons, and the role of hearing in development. Educational placement is discussed in terms of day and residential schools. Competent teachers for deaf and hard-of-hearing children must first be able to teach all the children with whom they come in contact, but certain qualities that may be helpful in teaching hearing impaired children are listed along with suggestions for teaching these children who are enrolled in regular physical education classes. A mention of research needs in this are concludes the section.

3. Barker, Meredith Ann. A study to determine if auditory perception may be improved through participation in an adapted physical education program of selected activities. Master's thesis. Springfield, Massachusetts: Springfield College, 1974. 75 pp.

   Subjects for this study were 31 kindergarten, 1st and 2nd grade children (ages 5-8) of average IQ with no physical disabilities who scored below normal on the Wepman Auditory Discrimination Test (form A). The subjects were assigned to an exp. or a control group. The experimental group participated in an adapted program of 50 lessons which included activities designed to improve perception. The control group participated in 50 regular physical education classes. At the end of the experimental period, the subjects in both groups were tested on form B of the WADT. The t test showed the experimental group to have improved significantly more than the control group ($p < .05$).

4. Brace, Cloyd. A comparison of the ability of deaf boys with normal boys in balance control. Master's thesis. University of Texas, 1936.

5. Breseth, Stephen M. A comparative study of the athletic capabilities of deaf and nondeaf students. 1971. 109 pp.

The subjects (N=100) were males and females ranging in age from 12 to 14 years. Fifty subjects were deaf and 50 had normal hearing. Each of the two groups was comprised of 25 boys and 25 girls. All subjects were tested for MBC, agility, second volume breathing capacity, arm strength, speed run, leg strength, eye-hand RT, and eye-hand coordination. The t showed the hearing subjects had superior capability ($p>.05$) in MBC, agility, second volume capacity, and eye-hand RT. A significant difference ($p>.05$) was found in favor of the hearing girls only in leg strength. No significant differences ($p>.05$) were found for boys and girls in eye-hand coordination, arm strength, and running speed, and for boys in leg strength.

6. Busack, Cathe. Manual communication with deaf riders. North American Riding for the Handicapped Association News, 3(3):8-9, November 1975.

A set of simple, highly visible gestures used to communicate instructions during an active riding class is illustrated. Presented are signals for walk on, reverse, circle, slow down, steering through poles, sit down, forward position, posting, trot, canter, and shorten reins. The author asks anyone who has developed a system of signals to contact her at the following address: c/o T. R. Brown, Larger Cross Road, Bedminster, New Jersey, 07921.

7. Daniels, Arthur Simpson, and Evelyn A. Daniels. Adapted Physical Education. Third edition. New York, New York: Harper and Row, 1975.

The major purposes of this third edition are to indicate how physical education can be made available to handicapped children, to provide guidance for physical education teachers and administrators, and to provide an inservice text for adapted physical educators, special educators, and classroom teachers. The book is divided into three major sections, each of which contains several chapters. Part one is concerned with defining the problem--who are exceptional children, what physical education does for them, their adjustment problems, and societal attitudes. Part two deals with physical education and specific impairments, including body-mechanics problems, mental deviance, neurological and neuromuscular disorders, orthopedic problems, organic conditions, sensory impairments, emotional disturbance, and others. Organization and administration of the program are covered in part three, with special chapters devoted to aquatics, camping, and post-school considerations. Each chapter is concluded with a bibliography; the book has some illustrations.

8. Developmental and Adapted Physical Education. Communications Disorders: An Individualized Program. Oakhurst, New Jersey: Township of Ocean School District (Dow Avenue, 07755), 1976. 124 pp.

This Project ACTIVE (All Children Totally Involved Exercising) manual was written to provide students and practitioners with the training and procedures for implementing an individualized and personalized physical activity program for students with communication disorders. Under the classification of communication disorders fall hearing impaired, visually impaired, autistic, and speech handicapped children. The Project ACTIVE format of Test,

Assess, Prescribe, Evaluate is followed by the manual. Procedures and various motor abilities (balance and postural orientation, eye and foot accuracy) are detailed. This is followed by a chapter on assessing student performance on these tests. The prescriptive process includes choosing appropriate tasks and activities based on test and assessment data. A chapter in the manual is devoted to exercises and activities in the following areas: gross body coordination, balance and postural orientation, eye-hand coordination, eye-hand accuracy, eye-foot accuracy, arm and shoulder strength, abdominal strength, explosive leg power, and cardiorespiratory endurance. A bibliography and various forms and check-lists conclude the manual. Students with peripheral deafness may have a balance problem due to reduced functioning of the semi-circular canals. Climbing and apparatus work should be limited for these students.

9. Dzyurich, V. V. The role of verbal speech in the development of movement in deaf children. Spetsial'naya Shkola, 1:58-60, 1968.

Sixty-three 13-16 year-old deaf children were subjects in a study of the pedagogical effect of oral explanation in physical education on (1) speed of motor reaction in response to a photic signal, and (2) swiftness in racing. Significant improvements were demonstrated as a result of teaching deaf children motor skills and habits to the accompaniment of appropriate verbal explanations. It is concluded that the well-known functional insufficiency of the motor analyzer in deaf children is ascribable not only to pathology of the auditory organs but also to the imperfection of the methods utilized in the physical education of deaf children.

10. Fait, Hollis F. Special Physical Education, Adapted, Corrective, Developmental. Philadelphia, Pennsylvania: W. B. Saunders Company, 1972.

Written for prospective physical education teachers in a variety of settings. Discusses visual handicaps, auditory handicaps, cerebral palsy, orthopedic defects, heart conditions, convalescence, nutritional disturbances, other physical conditions requiring adapted physical education, mental retardation, social maladjustment and mental illness, and aging. The following activities and topics are treated: basic skill games, rhythms and dance, individual sports, dual games, team games, swimming, weight training, outdoor education, corrective body mechanics, and developmental programs for physical fitness. Chapter Six: Auditory Handicaps, details such topics as the nature and causes of hearing disabilities, and needs and adjustments of persons with auditory handicaps. Suggestions for planning the physical education program in regular schools and special settings, and specific program content areas are discussed. An appendix includes suggested films and filmstrips for teachers, film sources, record sources, professional organizations, societies and associations, and periodicals.

11. Grimsley, Jimmie Richard. The effects of visual cueness and visual deprivation upon the acquisition and rate of learning of a balance skill among deaf individuals. Doctoral disseration. Athens, Georgia: University of Georgia, 1972. 98 pp.

Normal-hearing, congenital deaf, and acquired deaf children were taught a balance skill on the dynabalometer. Each subject was tested under conditions of: utilization of normal visual cues; utilization of supplemental visual cues; and absence of visual cues (blindfolded). Results indicated that normal-hearing children balance better than deaf children; deaf individuals learn the balance skill as well as normal hearing children as measured by the dynabalometer; there is no difference in performance or learning between congenital-deaf and acquired-deaf individuals; deprivation of visual input impairs balance performance; and supplemental visual cues significantly aid the deaf population especially the congenital deaf but do not help the normal hearing.

12. Kozyrnov, G. F. Alteration of reaction speed of choice of deaf people affected by participation in fencing. Teoriya I Praktika Fizicheskoi Kulturi (USSR), 8:44-45, August 1974.

Copy of article and translation available for fee through: National Documentation Centre for Sport, Physical Education and Recreation, The University of Birmingham, P. O. Box 363, Birmingham, B15 2TT, England.

13. Lindsey, Dianne, and Janet O'Neal. Static and dynamic balance skills of eight year old deaf and hearing children. American Annals of the Deaf, 121(1):49-55, February 1976.

The purpose of this study was to compare the performance of 31 mentally and physically normal eight year old deaf children with the performance of 77 mentally and physically normal eight year old hearing children on a battery of 16 static and dynamic balance tests. The findings suggest: (1) Deaf children failed significantly more tests on both static and dynamic skills than did the hearing children; (2) This relationship existed independent of race and sex of the child, only the variable of hearing status was found to relate significantly to performance on these skills; and (3) Elimination of visual input on static balance tasks increased the difficulty of the tasks for both the deaf and hearing groups, but the deaf were more seriously impaired in their balance abilities than the hearing children.

14. Logan, Mary J. A comparison of static and dynamic equilibrium among the hearing and hearing-impaired at the elementary and college levels. Master's thesis. College Park, Maryland: University of Maryland, 1969. 91 pp.

Four measures of static balance and two of dynamic balance were given to hearing-impaired subjects (N=60) at elementary and college levels, and an equal number of hearing subjects. Significantly

poorer balance ability was found in all cases for the hearing-impaired subjects at the elementary level, but in only three of the six tests at the college level. Apparently, certain factors operate in the intervening adolescent years that permit hearing-impaired subjects to compensate for the lack of auditory sensitivity in the performance of balancing tasks.

15. Long, John Alexander. Motor Abilities of Deaf Children. New York, New York: Bureau of Publications, Teachers College, Columbia University, 1932.

    Performances of equated deaf and hearing groups on five of the six tests of the Stanford Motor Skills Unit, a grip strength test and a balancing board test were compared. With the exception of balance, no significant difference in motor skills between deaf and hearing persons was found.

16. McCurry, Frederick A. A comparison of dynamic balance performances of deaf and normal college men. Master's thesis. University Park, Pennsylvania: Pennsylvania State University, 1969. 79 pp.

    Criterion tests included three standard dynamic balance tests: the balance beam test, the Bass test, and the sideward leap test. The Bass test and the sideward leap test were modified slightly for the deaf subjects. Subjects included 52 students from PSU and 53 students from Gallaudet College for the Deaf in Washington, D. C. At both schools subjects were divided into two groups--athletes or nonathletes--depending upon the information gathered from their questionnaires. Testing procedures at both schools were identical. There appeared to be a difference between dynamic balance abilities of deaf athletes and nonathletes; however, this was not true of the normal subjects. Reliability of the tests used in the study was high. Little or no relationship between deaf persons' hearing losses and their previous athletic participation existed. A moderate relationship existed among the various balance test performances for hearing subjects and for deaf nonathletes. There was little relationship, however, among the test performances for the deaf athletes.

17. Minter, Martin G. A comparison of reaction time and movement time in deaf and hearing freshman male college students. Master's thesis. College Park, Maryland: University of Maryland, 1969. 44 pp.

    Fifty deaf male freshmen at Gallaudet College, Washington, D. C., and 50 hearing male freshmen at Catholic University, Washington, D. C., who were enrolled in the required PE program, were tested on two tasks. The first was a simple reaction test requiring subject to depress a telegraph key with the index finger when a visual stimulus appeared. The second was a complex reaction and movement task requiring subject to extinguish 10 lights in random sequence. Each subject had 10 trials on each of the two tests. Results of the simple reaction time test showed no significant difference. On the reaction-movement time test, however, the deaf were found superior ($P < .01$).

18. O'Neal, Janet. Balance Skills in Deaf Children, a Pilot Study. University of North Carolina, Chapel Hill, April 22, 1974.

19. Pennella, Louis J. Physical Education Curriculum Guide. Buffalo, New York: St. Mary's School for the Deaf, n.d.

Program objectives and suggested activities for the pre-primary through senior high levels are given. These levels include: pre-primary grades (ages five and six), primary grades (ages seven, eight, and nine), intermediate grades (ages ten, 11, and 12), junior high grades (ages 13, 14, and 15), senior high grades (ages 16, and over). Curriculum modifications for multiple handicapped deaf students are also presented.

20. Pennsylvania School for the Deaf. Curriculum Guidelines in Health and Physical Education. Philadelphia, Pennsylvania: the School, 1966. 53 pp.

21. Physical Education for the Exceptional Child. The University of the State of New York. The State Education Department, Curriculum Development Center, Albany, New York, 1970. pp. 31-32.

Hearing impairment should impose little or no restriction on a child's physical education program. Since many of these children may not have had the early play experiences of normal children, they may need experience in simple, fundamental movements before they can participate in usual group activities. A maximum of demonstration and a minimum of verbal instruction are stressed. Specific activities for hearing impaired children in the areas of physical fitness and conditioning, games, self-testing, rhythm and dance, and aquatics and water safety are included.

22. Ritzke, L. Physical development of deaf children. Kultura Fizyczna 29(2):69-70, February 1975.

Copy and translation available for fee through: National Documentation Centre for Sport, Physical Education and Recreation, The University of Birmingham, P. O. Box 363, Birmingham, B15 2TT, England.

23. Robbins, John Philip. The effect of the Exer-Genie on selected components of physical performance in adolescent boys at the Tennessee School for the Deaf. Master's thesis. University of Tennessee, 1967. 81 pp.

24. Smith, Thelma. A survey of physical education programs for deaf and hearing impaired children. Master's thesis. Denton, Texas: Texas Woman's University, 1971.

25. Sosne, Michael. Handbook of Adapted Physical Education Equipment and Its Use. Springfield, Illinois: Charles C. Thomas, 1973.

Many repetitions of the same instruction may be needed before some hearing impaired students will be able to follow directions; eye

contact is also recommended. Using a set of pre-established command signals on the playground, gymnasium floor, and in the swimming pool is advocated.

26. Tsukerman, I. V. Rhythmic exercises and the speech of deaf children. Spetsial'naya Shkola, 1:54-57, 1968.

A survey of the literature on the theory and practice of rhythmic exercise as a means of promoting speech development in deaf children.

27. Vance, Paul Cessna. Motor characteristics of deaf children. Unpublished doctoral dissertation. Colorado State College, 1968. Dissertation Abstracts International, p. 1146-A, October 1969, 108 pages. (Order No. 68-14,746)

The purpose of this study was to compare the performance of physically and intellectually normal, deaf day-school children with the performance of a group of intellectually normal hearing children on a variety of motor skills. The deaf children used in this study were matched with normal hearing children by chronological age and sex. Procedure: Forty-four deaf children were included in the experimental group and 44 hearing children in the control group, making a total of 88 subjects. Forty subjects were boys, 48 girls. A treatment by levels statistical design was employed in the analysis of the results with the levels represented by chronological age spans of two years each, with a total of four levels in each group. The number of boys (5 hearing and 5 deaf) and the number of girls (6 hearing and 6 deaf) at each level were the same. The experimental group consisted of intellectually normal deaf boys and girls between the ages of 5-0 and 12-11 enrolled in five day school programs in large communities in Iowa. Just those pupils with 65 decibel loss or greater in their better hearing ear were included in the study. The control group consisted of the same number of hearing subjects at each chronological age interval as was included in the sample of the deaf (intervals of two years from 5-0 to 12-11). For every deaf subject included in the experimental group from one of the 5 school systems involved in the study, a normal hearing subject of the same age and sex from the same school system was included in the control group. The initial performance of both groups (deaf and hearing) on 10 motor tasks was compared. The tasks included: grip-strength on a hand-dynamometer, balancing on one foot, the Burpee squat thrust, ball-throw at a target, the Sargent jump, zig-zag run, fifty-yard dash, and three sub-tests of the MacQuarrie Test for Mechanical Ability; tracing ability, tapping speed, and dotting speed. The statistical design of this study was a treatment by levels analysis of variance. The treatments in this study were two different levels of hearing acuity (the deaf and normal hearing). The control variable was chronological age, divided into four intervals for both boys and girls. Performance on the 10 motor tests was the criterion variable Findings: Normal hearing boys achieved consistently higher raw scores on all 10 motor tasks than did the deaf boys. The differences were statistically significant at the .05 level on 6 of the 10 tests. Those tests were: grip strength, balance, the Burpee

squat thrust, ball throw at a target, tracing speed, and the fifty-yard dash. Normal hearing girls achieved higher raw scores than the deaf girls on 9 of the 10 motor tasks, the exception being the ball throw at a target. On 2 of the tests in which the normal hearing girls excelled, grip strength and squat thrust, the differences were significant at the .05 level. In the task on which the deaf girls excelled--ball throw--the difference was not found to be significant. Conclusions: The pattern of results suggests that normal hearing boys and to a lesser degree normal hearing girls, are superior to their deaf counterparts on a variety of motor tasks. Whether inferiority in motor abilities is a phenomenon inherent in the condition of congenital deafness per se, or rather the result of limitations in the range and variety of experiences and/or the differences in child rearing practices and the training which deaf children may be subject to, was beyond the scope of the present study but worthy of future investigation.

28. Waters, David Michael. An adapted individualized physical education program for preschool and elementary age deaf children. Nashville, Tennessee: George Peabody College for Teachers, 1975.

This independent study had a twofold purpose: to focus on effective communication with the deaf population, and to concentrate on an individualized motor development program for preschool and elementary age deaf children. The individualized physical education program is structured according to level of difficulty of activity. Teaching progressions, suggestions for lesson implementation, coding of activities to indicate if a student would be unable to perform an activity due to additional handicap or would be harmed by attempting to perform an activity.

29. Wheeler, Ruth H., and Agnes M. Hooley. Physical Education for the Handicapped. Philadelphia, Pennsylvania: Lea and Febiger, 1969.

It is explained that all persons with impaired hearing should not be taught in the same way. However, they do have certain common characteristics: (a) balance is often poor, (b) there may be anxiety and frustration due to past errors or lack of participation, impatience with lengthy explanation, and the setting of special signals before an activity can start, and (c) ability to cooperate in games, dance and other activity situations may be lacking. Suggestions for the teacher, and suitable activities are presented.

+30. Wisher, Peter R. The Role of Physical Education and Athletics for the Deaf in a Hearing World. Paper. January 1966.

+Available from CEC Information Services, 1920 Association Drive, Reston, Virginia, 22091. (Use Number when ordering; postage is extra.)

The role that a sound program in physical education and athletics can play in promoting rapport between hearing impaired persons and their hearing societies is summarized. Briefly discussed are the following considerations: the general situation of hearing impaired persons, some characteristics of this group, aims and objectives of physical education and athletics for hearing impaired persons, and some recommended activities.

RECREATION

Why were no articles describing a community recreation department-sponsored program for hearing impaired persons found in United States professional recreation journals* searched for this publication? Of course, there could be several answers to this question. Vernon and Fain (16) cite the problem of ignorance, in both recreators who lack a basic sensitivity to the deaf population, and ignorance on the part of deaf persons who have not fully comprehended what recreation involves. Vernon and Fain suggest three solutions to this problem: Recreation students must first be made aware of the problems posed by deafness and hearing losses (16). They then need to learn to communicate in sign language and fingerspelling (16). Finally, deaf people must be encouraged to enroll in graduate and undergraduate preparation courses in recreation.

Five of the seventeen sources in this section describe games and activities specifically recommended for use with hearing impaired children (3,13,14,16,17). Two of these are intended to be used as classroom games but can be adapted for other settings (13,17). Three citations dealing with creative arts and persons with handicapping conditions all have information on programs in the arts that are of, by, and for hearing impaired persons (1,4,8).

Resources

1. Arts and the Handicapped: An Issue of Access. A Report from Educational Facilities Laboratories and the National Endowment for the Arts. New York, New York: Educational Facilities Laboratories (850 Third Avenue, 10022), November 1975. 79 pp. $4.00.

   Accessibility to the arts implies removal of barriers that hinder or exclude potential patrons, such as architectural barriers (curbs, stairs, too-high telephones) and attitudinal barriers (inflexible admission requirements, insurance restrictions, preconceived notions about the safety or desirability of involving handicapped persons). This book reports on people, programs, and facilities developing solutions to the barriers that hinder participation of handicapped persons in cultural experiences. Sections of the book include: (1) innovative designs in art centers, (2) resources concerning legal implications of barriers, (3) incentives for removal of barriers (financial and technical assistance), (4) exhibits for visually impaired patrons, (5) museum education for handicapped patrons, (6)

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*As referred to in this publication, professional journals of recreation in the United States include the following: Journal of Physical Education and Recreation, Parks and Recreation, and Therapeutic Recreation Journal.

bringing art into already accessible and centralized community facilities, (7) art centers in public schools, (8) college programs in the arts that are accessible to handicapped students, (9) art facilities in special schools, (10) other community art centers, and (11) interagency cooperation to promote arts for handicapped individuals. Each section describes actual programs, facilities, and resources illustrative of the topic under consideration. Nature centers and trails, botanical gardens, resource organizations, and publications are listed in the appendices.

2. Buist, C. A., and J. L. Shulman. Toys and Games for Educationally Handicapped Children. Springfield, Illinois: Charles C. Thomas, Inc., 1969. $9.50.

The toys and games are placed into four major categories: perception (visual and auditory), retention and recall, conceptualization, and expression (verbal and motor). Each item is classified according to age, interest, price, and where the items can be purchased.

3. Cosper, Charles H., Jr. Activities for hearing impaired children: suggestions of an oral deaf adult in Northcott, Winnifred. The Hearing Impaired Child in a Regular Classroom: Preschool, Elementary, and Secondary Years--A Guide for the Classroom Teacher/Administrator. Washington, D. C.: The Alexander Graham Bell Association for the Deaf, Inc., 1973. pp. 193-195.

Involving a hearing impaired child can and should begin when the child is very young; as he/she grows older, more formal interaction through planned family acitivities and organized groups may serve to enlarge social contacts. Focus should be on exposing hearing impaired children to as many areas of social contribution as possible--family experiences, hobbies, school and church activities--to help them develop a broad understanding of themselves and the things they enjoy and are able to do.

+4. Educational Facilities Laboratories. We're Pleased that You are Interested in Making the Arts Accessible to Everyone... New York, New York: the Laboratories (850 Third Avenue, 10022), n.d.

This brochure is designed to provide an overview of the arts movement for many types of handicapping conditions. The section on deaf and hearing impaired persons briefly describes several programs involving this population in the arts. Addresses of the programs and persons to contact for more information are given.

5. Interaction: story hours for deaf children. Hearing and Speech Action, 43(2):17, March/April 1975.

+Available from Physical Education and Recreation for the Handicapped: Information and Research Utilization Center, 1201 16th Street, N. W., Washington, D. C., 20036.

Some public libraries now offer regularly scheduled story hours for deaf children; programs in Maryland and Oklahoma are mentioned. They are usually accompanied by short films or cartoons that do not require narration so deaf and hearing children can participate together.

6. Knapp, Robert M. Leisure-time activities of the deaf in Spokane, Washington. Master's thesis. Pullman, Washington: Washington Washington State University, 1954. 91 pp.

7. Kretschmer, Richard R. A study to assess the play activities and gesture output of hearing handicapped preschool children. Washington, D. C.: U. S. Office of Education, 1972.

The individual play habits and social interaction styles of 71 hearing impaired and 71 normally hearing preschool children were studied. Children were individually placed in a television studio constructed to resemble a nursery school, and videotape cameras were situated to record all activity occurring within the set. Evaluation of the 142 videotapes concerned both activities performed and objects engaged. Results indicated that hearing impaired children were more active, displayed more scanning behaviors using all sensory modalities, displayed more fearful behaviors, and engaged in little actual play. The social interaction study consisted of an evaluation of three triads each of normally hearing and hearing impaired children by means of an interaction rating scale. Researchers found that the hearing impaired groups were less cohesive and produced fewer successful social contacts than the normally hearing children. Gesturing as a communication device was more evident in hearing impaired children than was speech.

+8. Materials on Creative Arts (Arts, Crafts, Dance, Drama, and Music) for Persons with Handicapping Conditions. Washington, D. C.: American Alliance for Health, Physical Education, and Recreation, March 1975. $2.75. (Developed and printed as a service of the Information and Research Utilization Center in Physical Education and Recreation for the Handicapped, Project OEG-0-72-5454-233563, Bureau of Education for the Handicapped, U. S. Office of Education, Department of Health, Education and Welfare.)

This Guide provides information about resources for use in the creative arts--art, crafts, dance, drama and music programs for individuals with various handicapping conditions. Listings are provided for printed references (articles, books, curriculum guides), audiovisual materials (films, records), resource persons actively involved in one or more areas of the creative arts, associations and organizations concerned with creative arts and/or specific handicapping

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conditions, and material and equipment suppliers. State of the art statements regarding the creative arts in general and specific modalities in particular are included. References to research studies and annotated descriptions of resource materials constitute a major part of the Guide which is fully indexed. Activity suggestions, organizational guidelines, and implications for programing in art, crafts, dance, drama, and/or music for persons with various handicapping conditions are provided. Selected information and materials developed for the general population and adapted for use with special populations are integrated into this Guide.

9. McDermott, Elisabeth F. Free play--a pleasurable learning experience. Volta Review, 72(9):541-543, December 1970.

The author emphasizes the importance of deaf children attending a nursery school program with hearing children. Hearing children stimulate their deaf peers to use their voices, and free play activities provide many opportunities for language. Conversation is essential to the learning of young deaf children at home as well as at school.

+10. Miami snow poets: creative writing for exceptional children. Teaching Exceptional Children, 8(2):87-91, Winter 1976.

Blind, deaf, mentally handicapped and physically handicapped children can complement their functional learning experiences through creative writing. This process builds vocabulary, stimulates the senses, and results in creative and meaningful poetic expression. The affective needs and desires to express and communicate emotions are probably the same for all people.

11. Pomeroy, Janet. Recreation for the Physically Handicapped. New York, New York: Macmillan, 1964.

A readiness program designed to prepare children with impaired hearing for integration with the nonhandicapped is described. The Baltimore Hearing Society conducted a three-year demonstration project for integrating hearing-impaired children in community recreation and camping programs. Activities conducted included a rhythms class, a modified day camp, a ballet class, and an athletic club.

12. Rathbone, Josephine L., and Lucas, Carol. Recreation in Total Rehabilitation. Springfield, Illinois: Charles C. Thomas, 1959.

The philosophy of recreation in rehabilitation, and general procedures in developing a broad recreation program are presented. Part 2 concentrates upon the needs of various patients and the medical

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+Available from Physical Education and Recreation for the Handicapped: Information and Research Utilization Center, 1201 16th Street, N. W., Washington, D. C., 20036.

indications for recreational activities for acute illness, convalescence, and chronic disease; motor or physical disabilities; impaired vision, hearing, and speech; mental divergence and asocial behavior; and psychopathology. Music, the graphic and plastic arts, crafts, hobbies, literature and the theater, games and sports, dancing, and special events and parties are examined.

13. Royster, Mary Anne. Games and Activities for Sign Language Classes. Silver Spring, Maryland: National Association of the Deaf (814 Thayer Avenue, 20910), 1972. $2.00.

This book is composed of four major sections. Part one contains eight fingerspelling games and activities designed to help students become more fluent in sign language. Number games and vocabulary activities are found in sections two and three. The final section includes games and activities for expressive-receptive practice.

+14. Shea, Ed. A home guide of arts and activities for preschool hearing-impaired children and others. Rehabilitation Literature, 36(12): 376-380,385, December 1975.

This study contains activities that can be selected by parents to encourage the mental, physical and creative growth of their hearing-impaired children. Activities were conducted by parents and siblings with a three and one-half year old hearing impaired boy. Recommends use of the free correspondence course for preschool deaf and hard-of-hearing children and their parents offered by the John Tracy Clinic (806 West Adams Boulevard, Los Angeles, California, 90007). Activities include finger paints, crayons, paper bag masks, clay, string painting, plaster casting, straw blowing with tempera paint, cutting and gluing, and driving and pulling nails and sawing. Bibliography included.

15. Shivers, Jay S., and Hollis F. Fait. Therapeutic and Adapted Recreational Services. Philadelphia, Pennsylvania: Lea and Febiger, 1975. 366 pp.

This textbook is designed to prepare individuals for employment in a therapeutic recreation or community recreation setting. Philosophically, the book is based on the premise that handicapped persons are individuals with abilities as well as limitations, and that handicapped persons should be seen as individuals not diagnostic categories. Initially, chapters are concerned with giving an overview of therapeutic and adapted recreational services in treatment and community settings.

+Available from Physical Education and Recreation for the Handicapped: Information and Research Utilization Center, 1201 16th Street, N. W., Washington, D. C., 20036.

Subsequent chapters explain various physical and mental disabilities including aging and the psychology of disability. Sections on program considerations include information about organization and administration, with separate chapters devoted to performing and graphic arts, camping, and games and sports. The book has some photographs and illustrations. Specific consideraions in programing for hearing impaired persons include the following information: Sustained injury to the semicircular canal of the ear may cause balance problems; participants with this condition must limit their participation in certain activities that require accurate balance. Those who have had fenestration operations should avoid activities that require sudden head movements because they produce dizziness. Swimming is prohibited, and those with ruptured eardrum should avoid immersion of head in water. Hearing impaired persons are generally loath to leave a familiar activity to try something new. Although they tend to choose solitary activities to avoid potential communication problems, they need the psychological benefits that can come from participation in group activities.

16. Vernon, McCay, and Gerald S. Fain. Recreation and the unique problems of early profound deafness. Therapeutic Recreation Journal, 9(3):83-88, Third Quarter 1975.

The recreation profession has progressed slowly in the area of service delivery to deaf persons. This population has a special need for recreation services because they are denied access to forms of recreation that require hearing (television, music, lectures, movies, theater and listening to the radio). Five major aspects of the communication problem of deafness are examined in this article. Some of the ways deaf people meet their own needs for recreation are outlined along with some current needs with respect to recreation. These include the need for early instruction in play skills, education in life time sports and activities, and education to show families how they may involve their deaf child in family activities. Changes in recreation education programs are needed to sensitize students and better prepare them to meet the needs of deaf persons.

17. Wolff, Sydney, and Caryl Wolff. Games Without Words: Activities for Thinking Teachers and Thinking Children. Springfield, Illinois: Charles C. Thomas, 1974.

The nonverbal thinking games and activities in this book are most successful when used in the preoperational and concrete operational stages of development. Focusing on problem solving, concept formation and creativity, the book shows how to build adult level thinking skills in positive situations; each game is intended to stimulate some area of concept formation. These areas include strategy, permutation probability, perspective, movement and role play, tactile messages, memory and symbol picture logic.

When children are handicapped in the basic methods of communication, there is a real need for self-expression. Arts and crafts activities can provide this outlet; they also present an area in which hearing impaired children can perform on an equal basis with others (5).

In exploring opportunities in art for assessing and developing abilities of deaf children, Silver has done several studies (6,7,8). Art of deaf children was evaluated by one panel of psychologists, psychiatrists, and educators; another panel compared art of deaf children with that of hearing children. Silver (7) concluded that there was no reason why a hearing impaired individual should not have artistic talent and that art experiences could aid in developing the capacity for abstract thought. Four annotations in this section contain suggestions of arts and crafts activities which may be used with hearing impaired children (1,3,4,5).

Resources

1. Alkema, Charles J. Art for the Exceptional. Boulder, Colorado: Pruett Publishing Company, 1971.

   Includes specific chapters on physically handicapped, emotionally disturbed, juvenile delinquent, deaf, gifted, blind and mentally retarded children. Presents topics such as motivating mentally retarded persons, selecting and presenting an art topic, sources of art topics (i.e., field trips, scrap materials, phonograph records, imaginary occupations, science, self portraits), art appreciation, evaluating the art product, special techniques, methods, and materials (i.e., television displays, demonstrations, printing techniques, subtractive method, additive method, stencil printing, monoprints), metal tooling, paper sculpture, mosaics, stitchery, puppetry, clay work, finger painting, crayon techniques, collage techniques, woodworking, and weaving.

2. Jacobson, Marilyn. "Art as an experience: an experiment in film. American Annals of the Deaf, 117(3):401-403, June 1972.

   Described is an art experience using film and rhythm instruments which was created by four deaf fifth grade students in an art class. Working with clear 16mm. film, they applied color, line, and shape directly on the film and then reacted to the projected imagery with variations in rhythmic responses.

3. Lambert, Carroll, and Sandra Christensen. What a Child Can Do. Boulder, Colorado: Pruett Publishing Co., 1964.

   Arts and crafts activities for children are described including: fingerpainting, clay and paste, media for sensory experience, paint and painting ideas, collages, creative activities using miscellaneous materials, science experiences, and food experiences. Instructions

on how to conduct the activities are provided. Line drawings and photographs illustrate activities.

4. Laskin, Joyce Novis. Arts and Crafts Activities Desk Book. West Nyack, New York: Parker Publishing Co., Inc., 1971.

Presents over 110 arts and crafts ideas to develop creative expression while teaching important new learning concepts. Art lessons are designed to correlate with such activities as space study, foods and nutrition, music and dance, and the human body. Projects range from simple to complex and are geared to all age groups. A checklist of materials needed, motivational techniques and background information, follow-up activities, and classroom management hints are included with each lesson.

5. Lindsay, Zaidee. Art and the Handicapped Child. New York: Van Nostrand Reinhold Company, 1972. 144 pp.

Intended primarily for special education teachers, this book may be useful to anyone who provides creative art activities for physically or mentally handicapped children. The author devotes a brief chapter to each of the following conditions: visual handicaps, auditory handicaps, autism, brain damage, and mental retardation. The major portion of the book deals with descriptions, directions for and photographs of art activities for handicapped children. Activities are suggested in the areas of drawing, painting, modeling, carving, placing, printing, and puppets.

6. Silver, Rawley A. Art and the deaf. American Journal of Art Therapy, 9(2):63-77, January 1970.

Two studies exploring opportunities in art for assessing and developing abilities of deaf children are described. Art of deaf and aphasic children was evaluated by a panel of psychologists, psychiatrists, and educators. Responses to questionnaires indicated the art showed evidence of opportunities to generalize, imagine, express ideas and feelings, remember, associate, and evaluate; evidence was found that would aid in assessing attitudes, interests, knowledge, abilities, and needs. Another panel compared the art with art of hearing children. Eight judges found no differences, seven judges found deaf children less mature, and two judges found deaf children superior in art aptitude. Judges also indicated the art provided evidence of technical skill and sensitivities to art values. In the second study five assessments of art of deaf, aphasic, and hard-of-hearing children and adults found: deaf children and adults rated by art professors received slightly higher scores than hearing peers, while deaf teenagers scored lower than hearing subjects; when rated by art teachers and painters, the combined average score for the deaf was slightly higher than for hearing; nine of 11 teachers rated deaf equal or superior to hearing in independence, originality, sensitivity, expressiveness, and interest in art; a painting by a deaf adult received an award in an open juried competition; on one

of Torrance's Test of Creative Thinking eight of 12 deaf students scored in the 99th percentile. Of 38 replies received to a questionnaire sent to 50 employers and craftsmen in the arts, 35 felt a deaf person could be competent in their fields. Additional experiences of the author are noted and some art work is pictured.

7. Silver, Rawley A. Art breaks the silence. Children's House, 4(4): 10-13, Winter 1970.

To explore the opportunities in art for assessing and developing the abilities of deaf (and other special education) children, 25 students (ranging in age from 8 to 17 years), deaf or aphasic, were placed in experimental art classes for approximately ten weeks. The drawings and paintings were evaluated by psychologists, psychiatrists, and special education teachers. General concensus (93 percent) was that evidence could be found that art had afforded opportunities to generalize, associate, evaluate, and express ideas and feelings. The author concluded that there was no reason why an individual who has impaired hearing or language should not have artistic talent, and that art expreiences could serve to develop the capacity for abstract thought.

8. Silver, Rawley A. Using art to evaluate and develop cognitive skills: children with communication disorders and children with learning disabilities. New Rochelle, New York: the Author (Graduate School, Department of Art, College of New Rochelle, 10801), 1975. 25 pp. $1.50.

This paper is concerned with art procedures found useful in understanding and treating cognition problems of children with language and hearing impairments and with learning disabilities. Procedures are illustrated by one child's drawings.

DANCE

Techniques and methods of teaching dance to hearing impaired persons are presented in the references listed in this section. Information on the possible intellectual, emotional, physical and social benefits of dance for this population is also given (5). The small amount of material available in this area necessitates further investigation of the benefits of and opportunities for participation in dance by hearing impaired individuals.

Resources

@1. Mason, Kathleen Criddle, editor. Dance Therapy: Focus on Dance VII. Washington, D. C.: American Alliance for Health, Physical Education, and Recreation, 1974.

Compilation of articles exploring the development, theory, and methods of dance therapy. Philosophy and methods are examined for the role of the dance therapist in a psychiatric setting, as a member of a clinical team, in group therapy, and in individual work. Techniques for research and observation are examined. Dance is discussed for the following special groups: children with minimal brain dysfunction, the visually-impaired, the deaf, children with emotional or learning problems, and older people. Training and professional status is examined and a dance therapy consultant model presented.

2. Polk, Elizabeth. Notes on the demonstration of dance technique and creative dance as taught to deaf children ages 7-11. Journal of the American Dance Therapy Association, Inc., 1(1):4-5, Fall 1968.

Methods and techniques for teaching deaf children to dance are outlined.

+3. Wisher, Peter R. Creative Dance for the Exceptional Child. Paper presented at the 91st Annual Meeting of the American Association of School Administrators, Atlantic City, New Jersey, 1959.

Discussed are the historical and educational significance of dance, hearing impaired persons and their education, and the role of dance

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in the lives of hearing impaired persons. Students at Gallaudet College have developed what is called a "new art form" which consists of transforming signs to dance movement. A sign used in communication is abstracted into an art form; in this manner a story, poem or song can be danced.

+4. Wisher, Peter R. Dance and the deaf. Journal of Health, Physical Education, and Recreation, 40(3):81, 1969.

Discussion of considerations for hearing impaired participants in dance activities. Accompaniment, tactile cues, creativity, balance, relationship to speech development, student interest, and program values are covered.

+5. Wisher, Peter R. Psychological Contributions of Dance to the Adjustment of the Deaf. Paper. January 1967.

Possible beneficial effects of dance upon the four major components of adjustment--intellectual, emotional, physical, and social--are discussed.

+Available from Physical Education and Recreation for the Handicapped: Information and Research Utilization Center, 1201 16th Street, N. W., Washington, D. C., 20036

DRAMA

Of the eight listings in this section, three contain suggestions for conducting theater activities with hearing impaired persons (3,6,7).

Davis (5) surveyed 363 schools and classes for the deaf in the United States and Canada to determine the type and extent of theater activities being conducted. He concluded that more research and more interchange of ideas between schools in needed, and that a rationale for the uses of theater as an educational, recreational, and creative technique needs to be developed. His survey and Stensrud's thesis (8) were the only two research studies found in this area.

Resources

*1. Alexander Graham Bell Association for the Deaf, Inc. Cultural Activities for the Deaf. Rome, Italy: World Federation of the Deaf, 1967. ED 021 389.

Cultural activities for the deaf are described and discussed in seven conference papers. Two papers by P. R. Wisher of Gallaudet College treat the role of physical education and athletics for the deaf in a hearing world and psychological contributions of dance to the adjustment of the deaf. Also included are three papers from Poland: H. Burno-Nowakowska, Forms and Methods of Raising the Culture and Shaping of Personality of the Deaf and their Contacts with the Hearing, reports on the use of leisure time by the deaf; B. Gluszczak, In Exit from the Circle of Silence, describes a pantomime theater of the deaf; and M. Krysztalowska offers remarks on purpose and organization of education through art in schools for deaf children. In Artistic Activities of the Deaf, N. A. Klykova describes the Moscow Theater Studio of Mimicry and Gesture for the Deaf; and S. Bjorndal considers the role of the visual arts, including film in, How Can One Develop the Esthetic Experiences of the Deaf Child?

2. Arts and the Handicapped: An Issue of Access. A Report from Educational Facilities Laboratories and the National Endowment for the Arts. New York, New York: Educational Facilities Laboratories (850 Third Avenue, 10022). November 1975. p. 53-54.

That National Theater of the Deaf is a professional performing arts company combining the visual language of deaf persons with speaking actors who coordinate words with the eloquence of gesture and sign language. More than four fifths of its audiences are hearing people. Using the same combination of visual language, mime, and Speech, The Little Theater of the Deaf performs traditional literature and new material for school children around the world.

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Theater Center in Waterford, Connecticut, to over 35 deaf people involved in amateur dramatics or working with deaf children in the field of drama. A program designed to implement theater in public and private schools is open to students and teachers in elementary schools for the deaf.

3. Blake, James Neal. Speech Education Activities for Children. Springfield, Illinois: Charles C. Thomas, 1970.

Designed to be helpful to the classroom teacher and also to the speech therapist. The book suggests activities which will incorporate speech education as an integral part of elementary school education. Stimulation activities described are finger plays, action games, oral reading, choral speaking. Other categories of activities for speech covered are dramatic activities, storytelling, talks, conversation, and discussions.

4. Bragg, Bernard. The human potentila of human potential--art and the deaf. American Annals of the Deaf, 117(5):508-511, October 1972.

A member of the National Theatre of the Deaf urges utilization of creative arts in the education of deaf persons. Creative drama is said to begin with the child's self awareness and to trace his history and background, needs, dreams, fantasies, feelings about himself, and imagination through games and exercises. Because it begins where the child is by allowing him to use his everyday language to create dramatic scenes out of real or imagined incidents, creative drama is said to free the deaf child from the failure that he associates with the written word.

5. Davis, Jackson. A survey of theatre activities in American and Canadian schools for the deaf 1965-1970. American Annals of the Deaf, 119(3):331-341, June 1974.

Findings of a survey of 363 schools and classes for the deaf in the United States and Canada indicated that public residential schools were far more active in theatre than other types of schools. Most programs at public residential schools were done manually, while the bulk of those given at other schools were done orally. Very few schools had teachers trained in theatre and there were few drama clubs. Schools suggested that plays and programs geared to the communication problem and language improvement of students were most needed. The author concludes that deaf children must have the use of the theatre both to learn and to create. More research needs to be done, more interchange of ideas between schools is needed, and a rationale for the uses of theatre as an educational, recreational and creative technique needs to be developed.

6. Keysell, Pat. Extra problems. Broad Sheet, 4(3):3-5, March 1972. (Flat 14, 30 Crescent Road, N8, 8DA, London, England.)

Describes the author's experiences working in dramatics with the deaf. Discussion moves from the development of a television program

for the deaf, to an adult drama group, to teaching dramatics to deaf children. Provides a few suggestions for using mime with deaf children.

7. Olson, Jack R., and Carroll Hovland. The Montana State University Theatre of Silence. American Annals of the Deaf, 117(6):620-625, December 1972.

   Described is the development of a summer touring theatre group of deaf and hearing individuals. Discussed are program selections as well as acting and staging problems resulting from the use of manual communication.

8. Stensrud, Carol. Creative dramatics: the effects on the oral expression skills of speech and hearing dysfunctional children. Unpublished Master's thesis. Iowa City, Iowa: University of Iowa, 1975. (Author presently employed at Chico State University, Chico, California.)

MUSIC

Music can play an important role in the language, social, and motor development of hearing impaired children (7,10,11). Of the 12 listings in this section, seven deal with music and special populations, and five are primarily concerned with the use and teaching of music for hearing impaired persons (2,6,7,10,11). Only one research sutdy (6) was found in this area.

Resources

1. Alvin, Juliette. Music for the Handicapped Child. New York, New York: Oxford University Press, 1965.

   Musical sensibility in the handicapped child and the contribution of music to a child's general, emotional, intellectual, and social maturation are assessed. Recommended forms and types of music for listening and creating are discussed, and music and musical movement are described for children who are maladjusted, autistic, psychotic, cerebral palsied, physically handicapped, blind or deaf.

2. Brick, Rose Marie. Eurhythmics: one aspect of audition. Volta Review, 75(3):155-160, March 1973.

   Described is a eurhythmics program for hearing impaired primary, preteen and adolescent children using both structured and informal approaches. At the primary level, informal rhythm bands, creative interpretation of animals, and the composition of simple songs are suggested. Activities such as contrasting human voices and identifying instruments are recommended to help the preteen child understand the sound aspects of pitch, intensity, quality, and direction. Group activities are particularly recommended for adolescents.

3. Cole, Frances. Music for Children with Special Needs. Glendale, California: Bowmar Publishing Co., 1965.

   Materials and procedures for the use of music with physically, mentally, or emotionally handciapped children. Suggestions of ways to present the music are based on recognition of the need for motivational activities involving active participation. The words and music of the songs, suggested accompanying activities, and references to other related songs are included for the following categories: greetings, singing games, rhymes and jingles, folk favorites, make believe, games and dances, and special days.

4. Coleman, Jack L., and others. Music for Exceptional Children. Evanston, Illinois: Summy-Birchard Co., 1964.

   Information about various instruments which can be used in the classroom with special suggestions as to how children with certain handicapping conditions might use the instruments (visually handicapped,

aurally handicapped, orthopedically handicapped, educable and trainable mentally handicapped). Words, music, and directions are then given for songs which are especially appropriate for each instrument.

5. Deaver, Mary Jo. Sound and Silence: Developmental Learning for Children Through Music. Pikesville, Kentucky: Curriculum Development and Research, Inc. (211 Bank Street, 41501), 1975. 172 pp.

The purpose of this publication is to help teachers and activity leaders use music as a part of the total education of the handicapped child. For teachers who have never worked with handicapped children, a section describes various handicapping conditions (mental retardation, learning disability, emotional disturbance, visual impairment, auditory handicap, speech impairment, multiple handicap) and the values of music to children with these conditions. Characteristics of music and components of the music program are also detailed. A number of songs and music activities are presented in three sections for developing: (1) physical competencies (gross motor, fine motor, and visual skills); (2) personal and social competencies (self-help and self-care skills, good mental health and social adjustment, living in the community, developing and using language); and (3) vocational proficiencies (good attitudes, number and value concepts, environmental awareness). The book is illustrated throughout.

6. Elston, Jody E. The effects of teaching a rhythm band activities program to hearing impaired children. Master's thesis. University Park, Pennsylvania: Pennsylvania State University, 1975.

7. Fahey, Joan Dahms, and Lois Birkenshaw. Bypassing the ear: the perception of music by feeling and touching. Music Educators Journal, 58(8):44-49,127-128, April 1972.

Explained is the ability of the aurally handicapped child to enjoy music by tactual perception. Two educational programs are briefly described to illustrate methods that can be used in teaching music to the deaf. Discussed at some length are the areas of relaxation, movement, auditory training, rhythmic exercises, and speech in which music is said to be able to play an important role.

8. Music Educators National Conference. Music in special education. Music Educators Journal, 58(8):5-143, April 1972.

Special issue of the Music Educators Journal focusing on music in special education. Series of 20 articles cover such aspects of handicapping conditions as typical behaviors and implications for music education. Conditions dealt with include: mental retardation, blindness, deafness, learning disability, speech impairment, emotional disturbance, and physical impairment. Topics discussed cover: movement, rhythm, dance, instrumental and vocal music education, and music appreciation.

9. New York State Education Department. The Role of Music in the Special Education of Handicapped Children. Albany: Division for Handicapped Children, April 1971. ED 064 853.

Twenty-five instructional units: each contains a general educational goal, a series of behavior objectives designed to achieve the goal, and a number of learning experiences and accompanying resources intended to help children with particular types of handicaps experience music for purposes of learning about music itself, meeting certain physical, emotional, or psychological needs, and/or motivating and providing alternative ways of learning in other subject areas. Instructional units are provided for children with the following conditions: emotional disturbance, learning disabilities, brain injured, educable mentally retarded, communication disorders, visual impairment, deaf and severely hard of hearing, and multiple handicapped.

10. Riordan, Jennifer Talley. They Can Sing Too: Rhythm for the Deaf. Leavenworth, Kansas: Jenrich Associates, 1971. 67 pp.

Music has been accepted as an aid to language, social, and motor development. This book was written to help teachers of preschool (3-6 years) deaf children in teaching rhythm as a part of speech training. However, the book has also been found useful by teachers conducting music programs for socially maladjusted, emotionally disturbed, mentally retarded, and brain damaged children. The book is divided into four sections: short songs; large muscle, creative activities; games, dances and marches; and rhythm time-beats. Teaching suggestions are given at the end of each section.

11. Samoore, Rhoda. A rhythm program for hearing impaired children. The Illinois Advance, 1-3,15-20, January 1970.

Rhythm program which is based on the conviction that the teaching of rhythmic bodily movements and an appreciation of music facilitate the development of speech in deaf students at both the primary and secondary level. Benefits are cited, and objectives are outlined for rhythm programs in oral and manual departments. The methods and content of the rhythm classes are detailed (body and voice exercises, auditory discrimination practice, examples of songs and dances used, vocabulary development and speech practice techniques, and development of an appreciation and knowledge of musical instruments).

12. University of the State of New York. Curriculum Modules for Music in Special Education. Albany, New York: State Education Department (Bureau of Secondary Curriculum Development), 1971.

Individual music units for blind, brain injured, communication disorders, deaf and severely hard of hearing, educable mentally retarded, emotionally disturbed, learning disabilities, multiple handicapped, trainable mentally retarded, and visually impaired persons. Units at the primary, intermediate, and advanced levels are included for most of these handicapping conditions. Each unit has a general goal, a series of five behavioral objectives designed to achieve

the goal, and a number of learning experiences and accompanying resources intended to help children with that particular type of handicap to experience music.

SPORTS

Information on the three listed sports organizations for hearing impaired individuals was taken from the following source: Fisk, Margaret, editor. Encyclopedia of Associations Volume 1: National Organizations of the U. S. Detroit, Michigan: Gale Research Company (Book Tower, 48226), 1976.

American Athletic Association for the Deaf (AAAD)
3916 Lantern Drive
Silver Spring, Maryland 20902
Richard Caswell, Secretary-Treasurer

Founded: 1945. Members: 13,500. Regional Groups: 7. Local Groups: 131. To foster athletic competition among the deaf and regulate uniform rules governing such competition; to provide adquate competition for those members who are primarily interested in interclub athletics; to provide a social outlet for deaf members and their friends. Sanctions and promotes state, regional and national basketball tournaments, softball tournaments, participation in activities of the Comite International des Sports Silencieux and in World Games for the Deaf. Maintains AAAD Hall of Fame and gives annual Athlete of the Year Award. Publications: AAAD Bulletin (newsletter).

International Committee of the Silent Sports
Gallaudet College
Washington, D. C. 20002
Knud Sondergaard, Executive Secretary
Phone: (202) 447-0841

Founded: 1924. Members: 42. Membership composed of athletic organizations for the deaf in each of 41 countries. Provides an international sports competition for the deaf, patterned after the International Olympic Games. Seeks to promote and develop physical education in general, and the practice of sports in particular, among the deaf; encourages friendly relations between countries with programs in silent sports, and formation of silent sports programs in countries not yet participating. Holds Summer World Games and Winter Games alternately at two-year intervals. All competitors must be deaf, or have severe hearing loss. The Committee is recognized by the International Olympic Committee. Publications: (1) Bulletin, quarterly; (2) Handbook, irregular. Convention/Meeting: biennial congress--held concurrently with Games. 1977 Bucharest, Romania; 1979 Oslo, Norway.

United States Deaf Skiers Association
10500 Rockville Pike, Apartment 405
Rockville, Maryland 20852
Simon J. Carmel, President
Phone: (301) 493-9210

Founded 1968. Members: 307. Promotes skiing, both recreational and competitive among the deaf and hard-of-hearing in the United States. Provides deaf skiers benefits, activities and opportunities which will further increase their enjoyment of the sport. Encourages ski racing among the deaf and sponsors national and regional races for deaf skiers. Assists in any way possible the selection, organization and training of the United States Deaf Ski teams for international competition, such as the World Winter Games for the Deaf. Committees: Ice Figure Skating; Speed Skating. Publishes: U. S. Deaf Skiers Newsletter.

The following reprint contains advice for coaches who may have players with hearing impairments on their teams. Pointers on the use of hearing aids, hand signals, and lip reading are given as well as suggestions for adapting specific activities that might pose problems for the hearing impaired participant. In addition, activities are listed in which hearing impaired participants are at no disadvantage at all.

Lexington School for the Deaf
IDEAS FOR FAMILIES

HEY, COACH!

Here are a few ideas about problems that might arise with specific sports. This list does not include every possible situation but will alert you to other situations that may arise.

Basketball: If the player does not hear the whistle in the middle of the game, he might continue to play. If a foul is called behind him, he might not know and go on to make a basket that doesn't count. Hold your arms up to try to signal him that play has stopped and ask the others on the team to do the same.

Football: A hearing-impaired player can't hear the signals, so a system of hand signals has to be used.

Soccer: A player has to rely completely on what he sees and cannot count on another player behind him to call signals.

Gymnastics: The hearing-impaired gymnast has to understand what he has to do. Please don't give instructions while bouncing on the trampoline or while upside down on the parallel bars, rings, or ropes. It's tricky enough to lipread someone standing still!

Swimming: Be sure you have a way of attracting the attention of a hearing-impaired swimmer. The Buddy System is best. Also, the Life Guard should know when a hearing-impaired kid is in the pool.

During instruction, if a hearing-impaired student starts on a 25-yard lap, you can't catch his attention to correct him until he's finished the whole thing.

During meets, many hearing-impaired kids cannot hear the starter gun. A hand signal start would be fairer.

Life Saving: All kids have to do homework, but the hearing-impaired student probably has to do more reading because he may miss instruction in class.

When you're practicing things like the rear head hold, set up a signal system so that if the hearing-impaired kid is in trouble, he can tap the hands of his partner, which means, "Let go!"

Tennis: Watch out for the sun when giving instructions.

Skiing: Hearing-impaired skiers should wear identification tags for their own protection in case of an accident. Little children should be tagged with name, address, etc.

Dance: Hearing-impaired students can learn folk dances, or any dance by counting the beat aloud. They should wear their hearing aids, and the phonograph speaker should be put on a wood floor, so the vibrations can be felt. Dancing in bare feet or socks makes it easier to feel vibrations.

Vollyball and ***Bowling:*** The hearing-impaired kid is at no disadvantage at all.

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Lexington School for the Deaf
IDEAS FOR FAMILIES

HEY, COACH!

You have a kid with a hearing impairment on the team.

No, it's not going to affect how well he or she plays for you.

But it might be helpful to understand a couple of pointers about hearing impairment that probably are true for the kid on your team.

- He's wearing a hearing aid.
  It may not *appear* that he's getting much out of the aid, but wearing it will give him additional clues to what's happening.
  If possible, it's good for a hearing impaired player to wear an aid while playing in any sport *except* a contact sport or swimming. (Water ruins the aid. A tackle might break the aid.)
- A hearing impaired player is not going to get much out of group meetings, so the coach should make a special effort to have a teammate or himself brief him at some point before or after the game.
  However, don't exclude him from group meetings. Expect him to come and treat him the same as any other player.
- Be sure the player has a list of all games and practices, with the places and times. If there is a change of schedule, see that he gets the new information correctly. It helps to have a pad and pencil handy.
- Check that the hearing impaired kid knows exactly what he is to do for the safety factor. Don't assume that he understands everything you're saying the first time you say it. You say, "Tuck your head," when demonstrating a foreward roll. The hearing-impaired kid might be embarrassed to admit he doesn't understand you, and he could hurt his neck. Physically demonstrate whenever possible.
- Encourage the parents to contact you in case of some misunderstanding.
  Be sure you know how to reach the parents or a relative, friend, or neighbor, in case of emergency.
  Remember, nothing is wrong with the intelligence of the kid, although his language may be simple and his speech sounds different.
  When explaining something new, speak as simply as possible.
  Avoid cliches and idiomatic expressions. "Tighten up on defense," "Don't bunch," "Stick 'em," etc. If there are certain idioms you always use, try to take the time to explain them.
- Hand signals are imperative during a game. Try to use regular official hand signals even if you're playing without an official referee.
- When you're talking to the team out of doors, avoid standing so the hearing impaired kid must look into the sun. It's tough, if not impossible, to lipread that way.
- Don't expect a hearing impaired kid to lipread you from the outfield, or across the tennis court, or from the other end of the track.

Resources

1. Basack, Cathe. Manual communication with deaf riders. NARHA News (North American Riding for the Handicapped Association), 13(3):8-9, November 1975.

   This article presents descriptions and diagrams of a series of gestures that have been developed by the Cheff Center for the Handicapped and used by instructors for communication with deaf riding students.

2. Competing in a silent world of sports. The Physician and Sportsmedicine, 3(11):99-100,103,105, November 1975.

   Describes the values of competition and participation in sports to the deaf person. The sports program at St. Mary's School for the Deaf (Buffalo, New York) is presented. Children at St. Mary's are introduced to athletics at age 2, since motor skills are seen as the basis for reading, orientation in space, and normal living in society. Many deaf athletes have balance problems due to abnormally functioning vestibular mechanisms, and their biggest problem is poor communication. This results in deaf athletes having to devote considerably more time to learning all aspects of a game and having to start earlier in life to succeed at sports.

3. Fisk, Margaret, editor. Encyclopedia of Associations Volume 1: National Organizations of the U. S. Detroit, Michigan: Gale Research Company (Book Tower, 48226), 1976.

4. Jacobs, Leo. The community of the adult deaf. American Annals of the Deaf, 119(1):41-46, February 1974.

   A section of this article deals with the American Athletic Association of the Deaf. Founded in 1945, the Association has seven regional affiliates and about 120 local member clubs nationwide. Annual regional and national basketball tournaments are conducted, and the U.S. team in the quadrennial World Games of the Deaf is sponsored. Regional organizations for specific sports such as bowling, softball, skiing and golf also exist.

+5. Kruger, Art. The athletic achievements of deaf participants. The Silent Worker, October 1954. 3 pp.

   Achievements of deaf athletes in basketball, wrestling, track, football, baseball, and bowling are described.

+Available from Physical Education and Recreation for the Handicapped: Information and Research Utilization Center, 1201 16th Street, N. W., Washington, D. C., 20036

6. North Regional Association for the Deaf. Recreation and Sport for the Deaf. Publication No. 12. Manchester, England: the Association (33 Blackfriars Street, Manchester, 3).

Discusses the structure and function of the British Deaf Amateur Sports Association, which sponsors teams for the International Games for the Deaf and local Institutes for the Deaf.

7. Pennella, Lou. XII World Games for the Deaf. Journal of Health, Physical Education and Recreation, 45(5):12,14, May 1974.

During the week of July 20-28, 1973, the XII World Games for the Deaf (WGD), were held in Malmo, Sweden. This article describes the background, participants, records and events of the Games. The next WGD will be held in Bucharest, Romania, in Summer 1977.

8. Refereeing by remote control. The Physician and Sportsmedicine, 3(11): 105, November 1975.

Poor communication is one of the greatest handicaps to a deaf person participating in sports. An electronic remote control stimulator invented by David W. Sparks and tested at Stan Mikita's hockey school for hearing impaired youngsters may provide help. A transmitter controlled from the sidelines emits a radio-like impulse that is decoded into a pulse by a receiver worn by the player around the player's waist. The pulse is transmitted to the wearer's skin where it causes a painless muscle tremor. This could help coaches send information to deaf players, and may also be made sensitive to a referee's whistle.

9. Second Annual Stan Mikita Hockey School. U. S. Deaf Skier Newsletter, 4(4):11, October 1975.

Reports on the establishment of the American Hearing Impaired Hockey Association founded by professional hockey player Stan Mikita and his associates in March 1974. The AHIHA has two ongoing projects, its own Mikita Hockey School plus management of the U. S. Deaf Olympic Hockey team. The goal of the Stan Mikita Hockey School has been to expand opportunities for American hearing impaired youngsters to compete with normal hearing ice hockey players at all levels. This ambition has been realized by several of the participants who have come from all parts of the country to receive instruction at the Mikita Hockey School.

10. Second National World Games for the Deaf. Tryouts. June 28-30, July 1, 1972. Morganton, North Carolina: North Carolina School for the Deaf.

Lists of tryout officials and participants, U. S. World Games for the Deaf Champions, and World records in the various events are contained in this volume.

11. Stafford, George Thomas. Sports for the Handicapped. Third edition. New York, New York: Prentice-Hall, 1950.

Practically all the athletic activities usually offered to normally hearing individuals can be played by those with hearing impairments. In dance activities, folk dances and rhythms are helpful in developing better body control and self-confidence before social dancing is introduced. Aquatic sports are contraindicated in all cases of sinusitis, otitis medea, or any infection which might be exacerbated by submerging the head in water.

12. Xth International Games for the Deaf Committee, 1965. An Overview of the Xth International Games for the Deaf; and the Deaf in America. American Athletic Association of the Deaf, 1965. 134 pp.

The Tenth International Games for the Deaf were held in Washington, D. C. This booklet contains descriptions of various athletic organizations and the American Athletic Association of the Deaf Hall of Fame. A section on the deaf in America deals with self-governing organizations, service agencies, and education.

SWIMMING

In all swimming programs for persons with handicapping conditions, it is advisable to obtain medical clearance before allowing a person to participate. For persons with auditory impairments, this is even more important, since ear infections and certain other conditions may be aggravated by immersion in water. Earplugs or other means may be necessary to protect the ears of those with damaged or infected middle and/or inner ears.

Seven of the nine articles in this section offer teaching suggestions adapted to the needs of hearing impaired individuals (2,3,4,5,6,9,10). Instructors of these children should be aware that deaf children sometimes have difficulty with spatial orientation (2,9). This can be helped by placing a different colored light at each end of the pool to designate deep and shallow ends (2). Visual demonstrations can be more easily understood than verbal explanations, but since verbal explanations are also needed, the instructor should make sure each student is watching and can see the instructor's face. Since balance problems of hearing children make falling more likely, enforcement of the "no running" rule is essential. Another safety precaution involves having children always keep their eyes open when swimming. Students who wear hearing aids should remove them before entering the water to avoid damaging the aid.

Resources

1. Ashcraft, Rita J. A comparative study of the ability of preschool deaf and hearing children in beginning swimming fundamentals. Master's thesis. Jacksonville, Illinois: MacMurray College, 1949.

@2. Grosse, Susan J. Adapted swimming. The Best of Challenge. Washington, D. C.: American Alliance for Health, Physical Education, and Recreation, 1971.

A listing of suggested adaptations in techniques, equipment, and/or facilities for teaching swimming to children with a variety of handicaps is presented. Suggestions for working with hearing impaired persons include the following: using more in-water demonstrations, putting different colored lights at each end of the pool to help students orient themselves in the water, and making sure each student is watching and can see your face when directions are given. Teachers should be aware that many auditorally handicapped students may have breathing difficulties due to insufficient breath control, and that potential complications such as balance problems, head noises, and susceptibility to ear infection may be intensified by submersion in water.

@Available from AAHPER Publication Sales, 1201 16th Street, N. W., Washington, D. C., 20036.

@3. Keffer, Louise. Introduction to swimming for the deaf. The Best of Challenge. Washington, D. C.: American Alliance for Health, Physical Education, and Recreation, 1971.

Describes the first few swimming lessons of a group of deaf preschool (age 2-5) children in a deaf-oral nursery school at the Evansville Indiana Rehabilitation Center. Specific suggestions are included for getting acquainted with the children and early water adjustment.

+4. Meyer, J. C. Swimming for the deaf. Journal of Health, Physical Education and Recreation, 26(2), May 1955.

Values of swimming for the deaf, personality problems of the handicapped, problems of balance, and relationship of swimming to the general objectives of physical education are discussed.

5. Newman, Judy. Swimming for Children with Physical and Sensory Impairments: Methods and Techniques for Therapy and Recreation. Springfield, Illinois: Charles C. Thomas, 1976. 187 pp.

Swimming is a recognized contributor to the development of the whole child, even if that child has a physical or multiple handicap. In this publication, ideas and techniques for teaching swimming to handicapped individuals are shared. An introductory chapter discusses ways of relating to the handicapped child. This is followed by an extensive chapter on swim patterning, a method whereby the instructor guides the child's disabled limb(s) through the same basic swimming movements that the non-disabled limbs are performing; numerous diagrams illustrate the method. Separate chapters are devoted to swimming for paraplegic spina-bifida, traumatic paraplegic, multiple birth defect, blind, cerebral palsied, deaf, junior arthritic, and hydrocephalic children. A structured program for teaching deaf children is presented. Considerations in planning and conducting swim meets and shows for handicapped children are discussed. Sections on commonly asked questions, terminology, evaluation forms, and lesson plans are also included in the text. In the chapter on swimming for deaf persons, the following information may be helpful to instructors and aides: visual demonstrations are important since children cannot hear verbal explanations; balance problems of deaf children make falling more likely; enforcement of the "no running" rule is essential; another safety precaution involves having deaf children always keep their eyes open when swimming.

6. Padden, D. A. Ability of deaf swimmers to orientate themselves when submerged in water. Research Quarterly, 30:214-226, May 1959.

@Available from AAHPER Publication Sales, 1201 16th Street, N. W., Washington, D. C., 20036.

+Available from Physical Education and Recreation for the Handicapped: Information and Research Utilization Center, 1201 16th Street, N. W., Washington, D. C., 20036.

This study was designed to determine the relationship of deafness to orientation ability when deaf subjects were submerged in water; consideration is also given to the problems of deaf-blind swimmers.

7. Padden, Donald A. An investigation of the effect of submersion upon the sense of orientation of deaf swimmers. Master's thesis. College Park, Maryland: University of Maryland, 1956. 64 pp.

8. Priest, Louise. Swimming for the Handicapped: A Manual for the Aide. Washington, D. C.: The American National Red Cross, 1974. 36 pp.

   This manual is designed to give volunteer aides background information on swimming for handicapped persons and to show how aides can help in a program, whether in or out of the water. Nonswimming aides can play a vital role in transportation, dressing room assistance, record keeping and as safety assistants while swimming aides function directly as assistants to instructors. Teaching suggestions are incorporated into each section in the "Disabilities" chapter. Included in the appendix are signs for manual communication, the manual alphabet, a sample admission form and evaluation sheet, references, and a glossary of terms including definitions of some impairments not specifically covered in the "Disabilities" section.

9. Sterling, B. Aquatics for the Handicapped. New York: Swimming Pool Age, 1953.

   Describes the Spokane, Washington, YMCA swimming program for persons with handicapping conditions. Teaching hints and information on adaptations for blind, deaf, cerebral palsied and post-polio patient are included.

Of the seventeen listings in this section, only two listings describing a community recreation program for hearing impaired persons were found (1, 4). Neither of these appeared in a professional journal of recreation.* The coordinator of the Seattle (1) program wrote to parks and recreation departments all over the country to learn what was then (1972) being done for hearing impaired children. She found not one summer recreation program organized to meet the needs of this population. The children seemed to have two choices: either (a) attend programs for other special populations served by the division of specialized programs, or (b) accept the fact that no program were available to them. Mutual communication difficulties generally prevented them from being accepted into programs for normal children.

To what extent that situation has changed, it is difficult to determine since that was the only article describing a community recreation department-sponsored summer recreation program for hearing impaired children which was found. The other listing (4) described an integrated summer recreation program developed by the Lexington School for the Deaf. Although the compiler of this publication has learned of other programs for hearing impaired individuals sponsored by community recreation departments (10,12), they have not as yet been reported in professional recreation literature. Community recreators are encouraged to share their experiences in programing with and for hearing impaired persons.

Also included in this section are two directories of services for hearing impaired persons: one lists programs in the United States (15); the other pertains to resources in Canada (3). In addition, four listings describing recreation programs of various residential schools for the deaf are presented.

Resources

1. Appelman, Karen. Seattle's summer recreation program for hearing impaired children. American Annals of the Deaf, 119(6):724-726, December 1974.

   Each summer, the Seattle Parks and Recreation Department, Specialized Programs Section, sponsors a summer recreational/educational program for hearing impaired elementary school children. The program was coordinated by a certified teacher of the hearing impaired in order to insure that the activities contributed valuable experiences and information as well as being fun. Staff with a recreation background

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*Professional journals in recreation in the United States include the following: Journal of Health, Physical Education and Recreation, Parks and Recreation and Therapeutic Recreation Journal.

contributed knowledge of games and physical activities. For seven weeks the program was held Tuesdays and Thursday from 12:30 to 3:00 (one half hour after the Seattle Public Schools summer school program for hearing impaired children). A field trip was scheduled for every Thursday. The Tuesday before each visit was given to activities related to the field trip destination, in order to acquaint the children with what they were going to see.

2. Brown, Bev. Let your fingers do the talking. Tri Valley Herald (newspaper) Livermore, California, December 15, 1974.

Dave Lewton, a naturalist with the East Bay Regional Park District, conducts guided nature walks for the deaf at Sunol and several other area parks. This program, the first of its kind in the United States, has been adopted by numerous regional, state and national parks. Lewton's book "Sunol in Signs" has been sent to every naturalist in the country to help them learn basic signs for outdoor interpretation. The ecological story illustrates how naturalists can relate information through hand movements, facial expressions, and body language. Lewton also teaches free courses in sign language. (Address inquiries on the nature walks at Sunol to Lewton at P.O. Box 82, Sunol, California 94586.)

3. Canadian Hearing Society. Information service. Why Go It Alone: A Directory of Service for the Hearing Impaired. Toronto, Ontario, Canada: the Society, 1972. 168 pp.

This manual of resources relating to hearing problems in Ontario is descriptive, not evaluative, and has been obtained as directly as possible from the listed organizations. A selection of resources was made with a view to emphasizing the possibility of integration rather than isolation of hearing impaired persons. In the first section of the manual, international, national, provincial, and local organizations are listed;other resources covered include: health, counseling and referral, educational, central information and research, recreational, and interpreters for hearing impaired persons.

4. Cohen, Oscar P. An integrated summer recreation program in Northcott, Winifred H., editor. The Hearing Impaired Child in a Regular Classroom: Preschool, Elementary, and Secondary Years--A Guide for the Classroom Teacher and Administrator. Washington, D. C.: The Alexander Graham Bell Association for the Deaf, Inc., 1973. pp. 188-192.

After four years of experimentation, the Lexington School for the Deaf has developed a model program utilizing the resources of community agencies to promote the social development of hearing impaired children. In planning a program, it is essential that teachers, recreation specialists and others involved with hearing-impaired children in an integrated setting consider such factors as: children's ages, social maturity, communication skills, ratio of hearing to hearing impaired participants, parental cooperation, orientation and training of staff, activity structure, and availability of special education resource specialists.

5. Communications prospectus: summer in Switzerland. H & S (Hearing & Speech Action), 44(1):26, January/February 1976.

Brief item notes that a camp for deaf young people ranging in age from 10-23 is being organized for the month of June 1976 in the village of Blumensitien, Switzerland. The camp will be housed in the facilities of the Christian deaf community in that village which operates an international center for the deaf and sponsors international summer camps. The $350 cost per camper does not include air fare. Contact Swiss Holiday, International Association of Parents of the Deaf, 814 Thayer Avenue, Silver Spring, Maryland, 20910.

6. Deafness Research and Training Center. Services for Elderly Deaf Persons: Recommended Policies and Programs. Report of the Conference in Columbus, Ohio, June 15-17, 1971. New York, New York: New York University (80 Washington Square East, 10003), 1971.

This monograph is designed to focus attention upon the unique problems of elderly deaf persons. These issues include income, employment, health housing, transportation, retirement roles and activities, education, spiritual well-being. Facilities, programs and services, organizations, training of professionals to serve the deaf community,and research and demonstration are also considered.

7. Early Intervention for Hearing Impaired Children. Dr. Carl D. Spears, Director, East Baton Rouge Parish School Board, P. O. Box 2950, Baton Rouge, Louisiana, 70821.

This project has been funded through ESEA, Title III-IVC. It has been validated and may have materials available for dissemination.

8. Giangreco, C. Joseph, and Marianne Ranson. The Education of the Hearing Impaired. Springfield, Illinois: Charles C. Thomas, 1970. 184 pp.

The recreation program at the Iowa School for the Deaf is described as one phase in the school's effort to educate the whole child. Activities ranging from team and individual sports to crafts, socials and field trips into the community are conducted after school, in the evening and on weekends. Through participation in such community activities as Y-Teens, Scouting, athletics and trips the School has attempted to bring about a better understanding between hearing and deaf people.

9. Hughes, Norman Lester. A Proposed Recreation Program for Tennessee School for the Deaf. Master's thesis. Knoxville, Tennessee: University of Tennessee, 1967.

This study was designed to provide students of Tennessee School for the Deaf with an initial recreation program and to provide for future recreation planning at the school. Three areas of literature were searched: recreation program planning, recreation for hearing

impaired children, and studies of programs that might aid in this particular study. Questionnaires were sent to 65 residential schools for the deaf in the United States. Some of the findings include the following: Of the 45 schools replying, 87 percent indicated that they had a recreation program, but 63 percent of the schools did not have a recreation budget. Eighty to eighty-three percent of the schools provide recreation primarily for students aged 10-20. A swimming pool was the facility most lacking in the study. Social activities receiving the most favorable rating by schools were dances, movies, parties, and sports events. Passive activities rated most favorably were checkers, puzzles and cards. Active games included basketball, football, softball, table tennis, volleyball, and badminton.

0. The Special Services Division of the Department of Recreation. Maryland-National Capital Park and Planning Commission (Prince George's County, Maryland).

Maryland National Capital Park and Planning Commission has purchased a TTY telephone machine in order to better serve the deaf community in that area. Information will be compiled from each district and park concerning recreation programs, classes, and special events offered throughout the county. It is hoped this will better integrate the deaf into community recreation programs and increase community awareness. The Division has sponsored programs of recreational activities and dance for the deaf; the latter featured pantomime and improvisation. Future plans include providing people who know sign language to assist deaf children on regular playgrounds.

1. Luterman, David M. A parent-oriented nursery program for preschool deaf children--a follow-up study. Volta Review, 73:106-112, 1971.

A nursery program involving parents of preschool deaf children was described in The Volta Review, October 1967. The program centers on active participation of the parent in the therapeutic processes involved in educating a deaf child. The present report constitutes a follow-up of the first three years of the program. Superior progress was made by both parents and children. Although several problems arose in the program--including difficulty in maintaining the parent-centered emphasis, parent dependency upon staff members, ineffectiveness of written materials, and personal problems of parents--the program has had positive results and seems to have produced an attitude of activism and enthusiastic interest among parents concerned. Admission to a parent-centered nursery program at Emerson College in Boston was restricted to groups of eight parents and their hearing impaired children who were between the ages of 18 months and three years at time of enrollment. A new group was admitted each academic semester. Applicants were screened by pediatric, otological, psychological, and audiological testing. All of the children ultimately selected were thought to be normal with the exception of severe hearing impairment.

12. Montgomery County Maryland Department of Recreation, Area II, operates "Sunshine on Our Shoulders" for total communicators aged five to 16. The six week daily program includes crafts, drama, rhythms, dance, low-organized games, special events, team sports, and swimming.

13. Pennella, Louis J. Health Physical Education and Athletics at St. Mary's School for the Deaf: A Brief Outline. Buffalo, New York: St. Mary's School for the Deaf (2253 Main Street, 14214), 1972.

    Presents a resume of St. Mary's Athletic program personnel along with a brief description of the health, physical education and interscholastic athletics program. The total communication method of speech, signs, and fingerspelling is used along with visual aides in teaching health and physical education. In intramurals and athletics, a videotape recorder has been the most valuable aid in analyzing individual and team play.

14. Scouting for the Deaf. North Brunswick, New Jersey: Boy Scouts of America, 1973.

    This booklet is written primarily for leaders of Scout units for deaf boys and officials and staff members of schools for the deaf. Parents, Scouting affiliates, and other persons interested in the education of the deaf will find it useful. This is a reference book; parts that interest and meet an individual's needs can be read and the rest ignored. Contents include philosophy and principles (Scouting Is for All Boys), anatomy and physiology (Understanding Deafness), values and benefits (How Scouting Can Help the Deaf Boy), integration and mainstreaming (The Deaf Boy in a Unit of Hearing Boys), activities and methods (The Scout Program), and adaptations and modifications (Special Considerations). Appendices deal with organizing a Scout Unit in a residential school for the deaf, training aides, and resources.

15. Social and recreational groups and programs. American Annals of the Deaf 121(2):203-254, April 1975.

    Part III of the Directory of Programs and Services for the Deaf in the United States consists of information on social and recreational groups and programs, civic services, and clinical and evaluative programs and services. Summer camps for deaf and hard of hearing children are listed by state.

16. Turner, Linda, and Don Kurth. Project integration: the deaf child, the hearing parents and the deaf adult. The Deaf American, 19,20,38, October 1974.

    With the recent advent of total communication in the Smouse School for the Handicapped, a public day school in Des Moines, Iowa, the school has endeavored to seek out support and assistance from the local adult deaf community. Bowling was selected as a fun activity

which would allow for integrating deaf children of hearing parents with deaf adults. Although children and adults were used to different systems of sign language, each learned some signs in the other system and few communication problems arose. Opportunites to improve mathematics and social skills as well as to learn a new skill were afforded by the program. With greater interest and cooperation, more activities could be started.

17. Two therapeutic recreation students at the University of Maryland (College Park, Maryland) are currently preparing a resource book of recreation and leisure services for the deaf in the Washington, D. C., Metropolitan area.

RESOURCE/PERSONNEL CONTACTS

The following listing consists of individuals who have been identified to IRUC as involved actively and directly in physical education, recreation, sports, or related activity programs for deaf and/or hard-of-hearing individuals. This sampling is in no way intended to be a complete listing but simply to assist individuals seeking further information about programs and activities in these areas. Individuals involved in these areas are encouraged to let IRUC know of individuals, programs, and other resources appropriate to and applicable for this population in these areas.

Merle E. Barr
Associate Director
Handicapped Swimming
YWCA, 2829 Broadway
Spokane, Washington 99201

Ladd Colston
Recreation Director
Mamie D. Lee School
Ft. Totten Drive & Gallatin, N.E.
Washington, D. C. 20011

Elaine J. Iberer
Demo. Teacher
A. Harry Moore Lab. School
2078 Kennedy Boulevard
Jersey City, New Jersey 07305

Harriett L. Kaker
Physical Education Teacher
Ft. Worth Public Schools
4001 Littlepage
Ft. Worth, Texas 76107

Art Kruger
Belmont Terrace
Apartment B6
1500 N. Coalter Street
Staunton, Virginia 24401

Barbara Mumford
Recreation Coordinator
Fairview Hospital & Training Center
2250 Strong Road, S. E.
Salem, Oregon 97310

Lou Pennella, Dir. PE
St. Mary's School for the Deaf
2253 Main Street
Buffalo, New York 14214

Kristy Bott, Director
Discovery Through Outdoor Education
Macomb I.S.D.
44001 Garfield
Mt. Clemens, Michigan 48043

Gloria Heoft, Director
Developmental Activity Programs
Milwaukee Public Schools
1667 S. 24th
Milwaukee, Wisconsin 53204

Larry Jessen
Program Director
United Cerebral Palsy Association
7117 S. E. Harold Street
Portland, Oregon 97206

Stephen R. Keay
Executive Director
Northern Sub. Spec. Rec. Assn.
760 Red Oak Lane
Highland Park, Illinois 60035

Joan M. Marrs
Supervisor, Handicapped Recreation
San Antonio Parks and Recreation
950 E. Hildebrand
San Antonio, Texas 78212

Shirley Orlans
Perceptual Motor Teacher
Matawan Regional School District
Broad St. School
Matawan, New Jersey 07747

Milton Pettit
Remedial Physical Education Spec.
Chula Vista City School District
Chula Vista, California 92012

David N. Reams
Arcola Lake Elementary School
1037 N. W. 81st Street
Miami, Florida 33150

Jeanne Ridgeway
Special Physical Educator
Fletcher Miller Special School
200 Kipling
Lakewood, Colorado 80215

Tim Sullivan
Activity Coord. for Handicapped
Montclair State College
Upper Montclair, New Jersey 07043

Frank Turk
Director
Junior NAD, Gallaudet College
7th and Florida, N. E.
Washington, D. C. 20003

Jack Richmond, Director
Scouting for Handicapped
Boy Scouts of America
N. Brunswick, New Jersey 08902

Matthew E. Sullivan
Cons., Physical Education
Spec. School Dist., St. Louis Co.
12110 Clayton Road
Town & Country, Missouri 63131

Jan Thomas
Specialist
Colorado School for Deaf and Blind
Colorado Springs, Colorado 80901

Pete Wisher
Gallaudet College
7th and Florida, N. E.
Washington, D. C. 20003

AUDIOVISUAL MATERIALS

In addition to listings for nine films, references concerning television programs specially designed to meet communication needs of hearing impaired individuals have been included in this section. Two other audiovisual aids are also described: a rock gospel album and a teddy bear that encourages deaf children to verbalize. Obviously this listing of audiovisual equipment is not intended to be complete but rather to serve as a springboard for ideas on audiovisual materials that can be used with hearing impaired persons. A listing of suppliers of physical education and recreation equipment and materials may be found in the following source:

> Physical Education and Recreation for the Handicapped: Information and Research Utilization Center (IRUC). Update No. 9: Suppliers of Physical Education and Recreation Equipment and Materials. Washington, D. C.: the Center (1201 Sixteenth Street, N. W., 20036). $2.00

Films

1. Conversations With Deaf Teenagers (16mm, sound, color, 15 minutes). Department of Special Education, Western Maryland College, Westminister, Maryland, 21157.

   A group of deaf teenagers attending Swan Lake Camp (Minnesota) discuss their personal hopes, aspirations, and directions. Key points and issues surfaced included need to emphasize services to hearing impaired children in primary school departments; need to have deaf teachers throughout all school levels; problems of being left-out even in one's own family; problems and relationships with hearing and/or deaf parents; and desire to interact with hearing peers and classmates. Activities in which these young people are shown participating at camp include exercises and calisthenics, a softball game, boating, meal time, and on several field trips.

2. Dark Silence (16mm, sound, color, 11 minutes). National Audiovisual Center (GSA), Washington, D. C., 20409.

   Program, activities, and services of the National Center for Deaf-Blind Youth and Adults (New Hyde Park, New York) and its four field offices are discussed. In addition to providing client services to deaf-blind residents, this Center serves as a clearinghouse for cooperative exchange of information and materials dealing with education, training, habilitation, and rehabilitation of deaf-blind persons. Research conducted at or sponsored by the Center has dealt with training methods, technology, devices and equipment, and surveys of and about deaf-blind persons. Personnel preparation for individuals outside the Center staff is also available and provided through Center sponsorship. Specific program areas and activities shown include communication skills, activities and skills of daily

living, mobility and physical orientation, industrial arts, physical therapy, and counseling. When evaluation, program, and research activities and efforts are coordinated, prognosis for effective rehabilitation of deaf-blind persons is possible, probable, and promising.

3. The Deaf Child Speaks (16mm, sound, color, 16 minutes).
Extension Media Center, University of California, Berkeley, California, 94720. Purchase $190; Rental $14.

Many phases of the program at the Oral Education Center of Southern California where children with severe hearing impairments are taught to function in the normal world of speech, sound, and hearing are presented. Individualized instruction leading to a child's acquisition of a fully-formed language structure with intelligible speech is emphasized. Activities shown include a one-to-one speech-learning session demonstrating that young deaf children are capable of speaking; an experimental program utilizing colored plastic pieces to teach very small children essentials of sentence structure through visual and tactile means; a dance class on a specially constructed stage that is virtually a high loudspeaker and on which the children literally feel the music; a reading and speech class where children first lipread with their teacher and then read aloud a story they composed about a class field trip; a basic science class; and a math class where three-year olds learn serial properties of numbers. Importance and role of rhythm, time in space, movement, music, dance, and motor coordination activities are seen directly and indirectly through activities and presentations in the film.

4. On the Road to Light (filmstrip, color, sound, 15 minutes).
Boy Scouts of America, North Brunswick, New Jersey.

Boys and young men with various handicapping conditions--mental retardation, orthopedic conditions, visual impairments, brain damage, and hearing impairments--participate actively in a wide array of scouting activities. Troops from Texas, Connecticut, Pennsylvania, Indiana, and Florida are shown traveling, taking part in camperees, conducting rodeos, skiing, operating radio stations, doing arts and crafts projects, camping, playing games, and swimming. These youngsters, many in wheelchairs or on crutches, enjoy and are successful in activities found in any Scout troop. For many the only differences noted are in means of communication. Attention is given to all levels of Scouting--Cubs, Scouts, and Explorers. Leaders, parents, and Scouts themselves speak about these programs and their contributions to all participants.

5. Silent Skater (video cassette, sound and captioned, color, 28 minutes).
Archives of the American Athletic Association for the Deaf, Edward Miner Gallaudet Memorial Library, Gallaudet College, Washington, D. C.

This special program recorded by WGBH-TV (Boston, Massachusetts) presents hearing impaired and deaf figure skaters in a stirring demonstration of their beauty and skill during the VIII International Winter

Games for the Deaf at Lake Placid, New York, in February 1975. Exhibitions include several girls in their teens going through individual skating routines to music; two groups are shown in pairs skating. An exhibition of barrel jumping is shown in which a young man from Canada wins with a leap over 14 barrels. A special demonstration by a 21-year old blind skater from Delaware is included. This presentation is captioned so that the program is appropriate for either hearing or non-hearing individuals.

6. We Can Grow (16mm, sound, color, 13 minutes).
ACI Films, 35 West 45th Street, New York, New York, 10036. Purchase $160.

Children from the Special School District (St. Louis, Missouri) say and show that they can learn, move, and grow. Each uses strengths and abilities to attain maximum levels of independence as their minds move freely through thoughts to discover meaning of numbers and words. Play and physical activities are important in this process regardless of specific conditions. Specifically, (1) orthopedically impaired are shown playing games and climbing on jungle gyms, turning on bars, and using horizontal ladders; (2) deaf take part in arts and crafts as they hear with their eyes, hands, and hearing aids; and (3) visually impaired participate in nature activities as they see flowers and animals with their hands and ears. All hike and play on the playground. Although they are impaired they lift themselves to greet the world, work to grow straight, and find ways to move their bodies more freely through space.

7. What Is A Handicap? (sound filmstrips).
BFA Educational Media, 2211 Michigan Avenue, P. O. Box 1795, Santa Monica, California, 90406. Purchase--four sound filmstrips with cassettes $74.50; with records $62.50

Four sound filmstrips give viewers opportunities to meet four young people with different handicapping conditions. Mark cannot walk; Rosa has difficulty hearing; Cindy cries easily; and Tony learns slowly. Each is shown in everyday situations; they interact with friends, teachers, and families. Play, recreational and physical activities are important in the life of each of these children. Mark plays basketball, swims, does craft projects, and performs magic tricks; Rosa plays handball; Cindy flies kites and plays basketball; and Tony rides bicycles and plays kickball. Interwoven with the dialogue is narration that explains each of these conditions and how each child feels about the condition. These filmstrips are open-ended and close with questions that draw viewers into the situation, encouraging them to see similarities between all people and to establish friendships with impaired, disabled, and handicapped children.

8. VIII World Winter Games for the Deaf (color video cassette or black and white video tape, sound, 28 minutes).
Archives of the American Athletic Association for the Deaf, Edward Miner Gallaudet Memorial Library, Gallaudet College, Washington, D. C.

The VIII World Winter Games for the Deaf were held at Lake Placid, New York, during February 1975. During these games, held for the first time in the United States, 150 athletes, representing 13 nations competed in 11 official and two exhibition events. Filmed high lights of Alpine ski events--downhill, slalom, giant slalom--and Nordic ski events--individual and cross country relays--are shown. Interviews with several gold medal winners from Russia are included (English is translated to spoken Russian which is translated into Russian signs with the reverse process for answers). Scenes from a hockey exhibition between teams from the United States and Canada are shown along with excerpts from figure skating exhibitions. Closing ceremonies include the director for the 1975 games speaking followed by lowering of the official flag which will be used for the summer games in Bulgaria in 1977, and the IX Winter Games in Oslo, Norway, in 1979.

*9. Conference of Executives of American Schools for the Deaf. Lesson Guide for Captioned Films VIII: A Training and Utilization Guide. Florida Edition. the Conference, 1972. ED 067 793.

Presented are guidelines for the use of 65 captioned films for the deaf (numbers for each category are listed in parentheses) which relate to art (four), ecology (six), guidance (five), health and safety (two), language arts (11), physical education (four), science (16), social studies (14), and vocational education (three). Guidelines provide film synopses and suggestions on use, objectives (behavioral and general), motivation, vocabulary, culminating activities, evaluation, and additional resource materials. A complete list of all other educational captioned films for which study guides have been written for the past eight years appears in appendix.

*Available from ERIC Document Reproduction Services, P.O. Box 190, Arlington, Virginia 22210. (Use number when ordering; postage is extra.)

Television Programs

1. TV for the deaf. Saturday Review of Education, 1(4):82, May 1973.

   Describes a television series called Vision On, produced in England by the BBC for the entertainment of deaf children. Each of the 26 half-hour shows has a specific theme. It was shown in the United States through May 1973. For a list of stations showing Vision On write the American distributor, Time-Life Films, Time and Life Building, Rockefeller Center, New York, New York, 10020.

2. Lewis, Dennis John. Good news for the deaf. The Washington Star (newspaper). Washington, D. C.

   Reports that deaf and hearing-impaired persons in the Washington area will be able to watch specially produced weeknight telecasts of the ABC Captioned News at 11:30 beginning Monday, July 5 on WETA-26, an affiliate of the Public Broadcasting System. A survey of the local deaf community indicated a desire for more captioned programs, more often, in more categories--such as movies, emergency bulletins, talk shows, local news and sports events.

Record

1. Sing and Sign (record album). Columbia, Maryland: Rock Gospel for the Deaf (5652 Stevens Forest Road, 21045). Price: $4.75 plus $.45 postage and handling per record.

   This rock gospel album designed for hearing impaired individuals contains such songs as I Believe in Music, Get Up and Walk, and Day by Day.

Equipment

1. Equipment communications prospectus: an extraordinary teddy bear. Hearing and Speech News, 42(4):18, July-August 1974.

   A Teddy bear has been developed by the Royal National Institute for the Deaf (England) to assist those who work with very young deaf children. The bear's eyes glow when they are sound activated; this feature encourages deaf children to vocalize. The toy is available from the following source: Royal National Institute for the Deaf, 105 Gower Street, London, WC1E, GAH, England.

1976 Directory of National Organizations of and for the Deaf

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3417 Volta Place
Washington, D.C. 20007
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TTY: (202)-363-3768

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PRESIDENT–Winifred Northcutt

DEAFNESS RESEARCH FOUNDATION
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New York, New York 10017
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305 Great Neck Road
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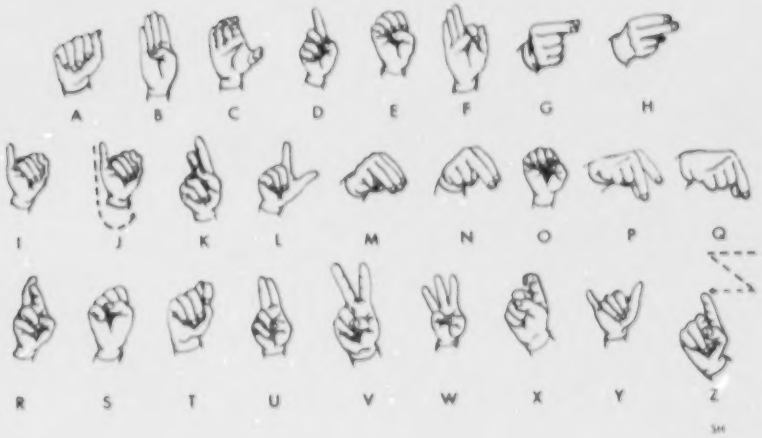
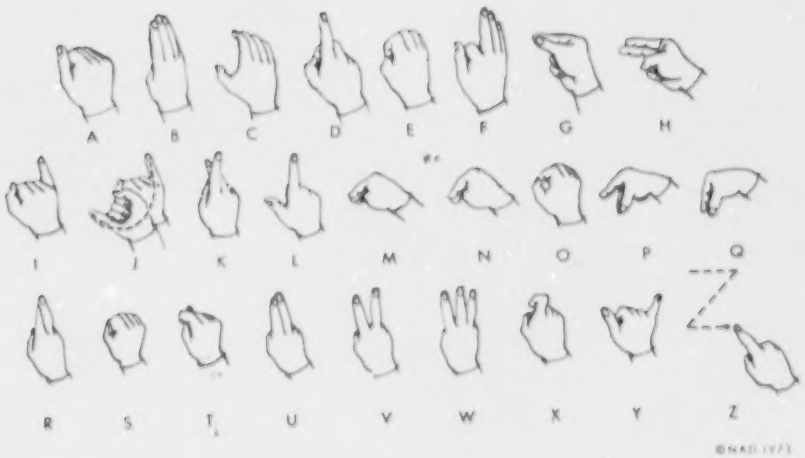
NATIONAL ASSOCIATION OF THE DEAF

The Manual Alphabet
(as seen by the receiver)



The Manual Alphabet
(as seen by the sender)



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John Tracy Clinic
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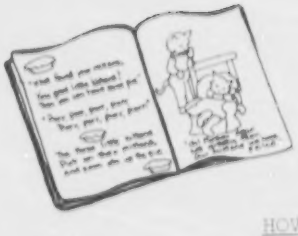
Los Angeles, California 90007

Parents of deaf or deaf-blind preschool children may receive the Clinic's Correspondence Courses at no cost by writing directly to the Clinic.

STORY TIME



HOW TO TELL A STORY

and

A LIST OF BOOKS FOR PRESCHOOL CHILDREN

THINGS TO CONSIDER

Don't try to read a story to your child, tell it -- and use a picture book to help him understand. Because your child can't look at pictures and your lips at the same time, telling him a story will require some special planning. With some forethought you can make story time a pleasant and worthwhile experience for your child.

There are three things to consider when you tell a story to a deaf child:

1. Choosing the picture book,
2. Getting ready to tell the story.
3. Telling the story to your child.

CHOOSING THE BOOK

When selecting the picture book to use with your child, keep the following few points in mind.

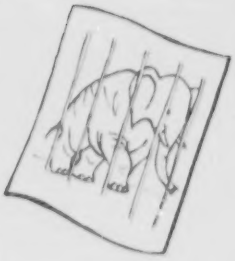
First, be sure to choose a story that will interest your child. It should be quite true to life, especially for younger preschoolers -- the two and three year olds.

If you choose an imaginative story, choose one that in some way reminds your child of things in his own life. For example, The Three Little Kittens, while it is not a story of real life, is about three kittens that do many things that a child might do.

On the other hand a fairy tale like Sleeping Beauty has little in it that a young deaf child could identify in any way with his own life.

Your next consideration should be to choose a book with good illustrations. The pictures should be clear and free of extra details. Pictures of animals or people should be lifelike -- not caricatures. All pictures should look like the "real thing."

no



yes

Finally, make certain the story is one you can easily tell in your own words -- using simple language. There should only be one or two lines of print per page.

Look at many storybooks and make your own choice. Choose a book you and your child can enjoy together.

GETTING READY

After you have selected a picture book to use with your child, prepare to tell the story. Go through the book and choose the pictures you will talk about. Put a paper clip on the top of each page you want to use so you can flip through the book to the right picture when you need it.

At first you may not be able to hold your child's interest for a long story, so select only three or four pictures to illustrate the main points.

Decide in advance what you will say about each picture, so you won't be at a loss for words. Try to choose words your child may soon understand; use language at about his level. For example, you could choose four pictures and plan to say:

1. "Here are three little kittens."
2. "See their mittens."
3. "The kittens are crying."
4. "Their mittens are dirty."

TELLING THE STORY

You are now ready to tell the story. (Let's continue to use The Three Little Kittens for an example.)

Sit facing your child and hold the book closed with the cover toward your chest. Enthusiastically say something about the book. "Here's a book!" or "Let's read a book." You might then mention the picture on the cover: "See the kittens."

Then turn the book around so your child can see the cover. If he looks up at you, mention the three kittens again. Now open the book to the first picture (marked in advance with a paper clip).

Hold the open book picture side to your chest and say something about the picture. "Here are three kittens."

Then turn the book around so your child can see the picture, but .....

..... KEEP THE BOOK IN YOUR HANDS! Don't let your child take it at this point. His turn comes later.

Let him look at the picture, and of course if he looks up you must be sure to talk about that particular picture.

Before he loses interest, turn the book around, go to the next page you have marked, and again hold the book toward your chest as you name whatever is in the picture. "The kitten is playing."

Then turn the book around so your child can see the picture. But keep it firmly in your possession for now.

Go through each of the three or four pictures you have chosen in the same way.

First

HOLD THE OPEN
BOOK TOWARD YOUR CHEST.

Next

TALK.

Finally

TURN THE BOOK AROUND SO
YOUR CHILD CAN SEE THE PICTURE.

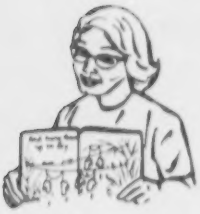
Now

IT'S YOUR CHILD'S TURN

When the story is over, give the book to your child to look at and enjoy. Let him take his time and enjoy it in his own way, but be ready to comment on a picture if he looks at you.

As time goes on, your child's interest and attention will grow. Then you can use more pictures. In the beginning, don't stretch the story beyond his limit of interest.

Put life and enthusiasm into your voice and facial expression as you tell the story. Liven it up!



Occasionally dramatize a picture by using a small toy or what we might call a "prop" to make the story more interesting and to help your child understand. A tiny pair of mittens, for example, would liven up The Three Little Kittens. (But don't overdo the props. Too many become distracting and take importance away from the book itself.)

A BIBLIOGRAPHY

Books are fun and can lead the way to new and better language for any child. Young deaf children, like all young children, enjoy suitable stories and picture books. Here are a few guidelines that may help you to choose books for your child.

FIRST	Choose clearly illustrated books with easily recognizable pictures of familiar things.
SECOND	Avoid books with pictures that are too "busy," with a confusing clutter of objects or activities to take away from the main point of the picture.
THIRD	Choose books with just a line or two of print accompanying each picture. The pictures should almost tell the story.
FOURTH	Choose books that are factual, about real places and activities rather than those that are largely imaginative.
FIFTH	Choose books of interest to your child.
SIXTH	Have many books available, covering a wide range of subjects.
SEVENTH	Choose books you can enjoy with your child.
EIGHTH	Use a different book every day and put it away for about two weeks. After that length of time you will be able to recapture his interest with the same book.

CHOOSING BOOKS

Who can help you choose books for your child? Your local children's librarian, a kindergarten or nursery school teacher may be your best source of help. The following organizations will send parents selected book lists and publications about children's reading that will help you make good choices.

Alexander Graham Bell Association, 1537 35th St., N. W., Washington, D. C. 20007. Books for Deaf Children (Nursery through Grade 9), by Mary Griffith Newton ($3.30).

Bank Street College Bookstore, 89 Bank St., New York, N. Y., 10014. Books for Children (free catalog).

The Children's Book Council, 175 Fifth Avenue, New York, N. Y. 10010. Aids to Choosing Books for Your Children (a list of book lists and of books about children's books).

National Council of Teachers of English, 508 South Sixth Street, Chicago, Illinois. Readers and supplement (both for $1.00).

See also the suggested books listed on the following pages. If you cannot locate a particular book, you may find another covering the same topic.

TO BUY OR BORROW

Lesson 1

YOU AND YOUR CHILD

Baby and Child Care, by Benjamin Spock, M. D. (in paperback; 60¢ includes mailing charges).

Order from:
Mail Service Department
Pocketbooks, Inc.
1 West 39th Street
New York, New York 10018

Common Sense Book of Baby and Child Care, by Benjamin Spock, M. D.

Order from:
Duell, Sloan and Pearce
60 East 42nd Street
New York, New York 10017

Your Child from One to Six. Children's Bureau Publication #4 (20¢). (Ask for FREE list of publications of interest to parents.)

Order from:
Superintendent of Documents
U. S. Government Printing Office
Washington, D. C. 20402

How to Give Your Child a Good Start, by Aline B. Auerbach. Code #161 (25¢). (Ask for a FREE publications list.)

Order from:
Child Study Association of America
9 East 89th Street
New York, New York 10028

The First Five Years of Life, by Arnold Gesell, M. D. ($5.95).

Order from:
Harper and Row, Publisher
51 East 33rd Street
New York, New York 100i

THE EDUCATION OF DEAF CHILDREN

Your Deaf Child: A Guide for Parents, by Helmer R. Myklebust ($4.70).

Our Deaf Children, by Freddy Bloom ($3.70). Written by the mother of a deaf child.

Order from:
Alexander Graham Bell Association
1537 35th Street, N. W.
Washington, D. C. 20007

CHILD'S OWN PLAY

Lesson II

BLOCKS AND LANGUAGE BUILDING

Our suggestions for using your child's play as a language learning opportunity will deal, in each lesson, with some specific kind of play. Keep in mind, however, that many of the ideas developed for a particular type of play may also be applicable and adaptable to other things that your child does, or other things that he uses in his play. In this lesson we shall see how language learning can have a major role in block play. At each age level there are many ways children find to play with blocks. And each way has its own topics for conversation. Follow your child's lead. Take advantage of every situation.

Games with Blocks Are Simple at First

There are few children who do not like to play with blocks. Babies and some two year olds may prefer small, hard rubber, plastic, or wooden blocks that they can easily hold. They may drop them, throw them, push them around, or even try to stack them. Knocking down a stack of blocks may be more fun than putting one block on top of another.

Talk about Each Block in a "Dropping" Game

A two year old may enjoy dropping or tossing small blocks into a box, basket, can, or pail. You could hand him one block at a time. Hold the block until he glances at your face, then say something like: "HERE'S A BLOCK." "IT'S A BLOCK." "DROP THE BLOCK." "ANOTHER BLOCK!"

Show him how to drop the block into the container. Then you could say: "THE BLOCK'S IN THE PAIL."

A Block Train

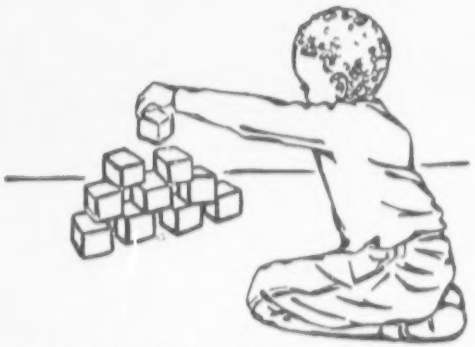
A child two or three years old will enjoy making a "train" of the blocks and pushing them across the floor. You could say something about another block as he adds it to the "train," or (when he looks at your face) you could say: "PUSH THE TRAIN." "GIVE IT A PUSH." "IT'S A TRAIN." "YOU PUSHED THE BLOCKS."

Stack the Blocks

Three and four year olds enjoy piling one block on top of another and will be proud of what they have built. You can show that you, too, are pleased with your child's building skill. You can talk about what he has built and let him know that you share his pride. "THAT'S HIGH! "PUT ANOTHER BLOCK ON." "HIGHER!" "THAT'S GOOD!" "OH! IT'S GETTING HIGH." "UP!"

Building Blocks

Some four year olds and most five year olds may build structures that really represent something. They may plan and build a gas station and use small cars in their play. The blocks may be used to build walls--sometimes in the familiar pattern shown in the drawing on this page. You can try to recognize what your child is building and talk about it. It may be a wall, a house, a road, a tower or even a castle.



"YOU MADE A BLOCK WALL!"

Kindergarten Blocks

Children usually like large kindergarten blocks. They will play with them in a variety of ways according to age and inventiveness. Offer your child the appropriate language for what he does and for the things he builds.

These blocks can be bought or made from scrap lumber. Here are some suggested dimensions (so they will fit together):

1 and 3/8" x 2 and 1/4" x 11/16"

2 and 3/4" x 4 and 1/2" x 1 and 3/8"

5 and 1/2" x 9" x 2 and 3/4"

description:

BEAT THE DRUM (Listening)

purpose of the game:

To help your child make a response to sound as he LOOKS and LISTENS.

what you need:

A drum or a large pan and a wooden spoon or stick. Four or five marbles and a smooth edged can. Someone to help you (the other parent or an older child, for example).

what to do:

Strike the drum (or pan) as your child watches. Have your helper drop a marble in the can as you strike the drum. Do this twice.

Then have the helper hold your child's hand and help HIM drop the marble in the can, as TOGETHER they watch you strike the drum.

Perhaps, after several times of being coached, your child will learn to watch and wait -- then make the response by himself. On the other hand, it may be some time before he understands the game, especially if he is very young. Do not be in a hurry. Help him when he needs help and praise him when he succeeds.

Always use sight and sound together until your child learns the game. When he responds consistently, try beating the drum where he cannot see it. If he does not drop the object in the can when he hears the sound, revert to letting him look and listen once again.

variations:

Use checkers, buttons, tiny candies, or pebbles instead of the marbles. Substitute a bowl, or a muffin tin for the can.

description:

LOTS TO LEARN (Story Time)

End each game period with a story. The purpose of Story Time will remain basically the same, although your child will enjoy it more and more as time goes on. Sometimes the pictures in the book will be sufficient to help your child understand, and sometimes you will want to use little "props" to add interest and make the story clearer. Follow the procedure outlined in the first lesson. Keep it handy and review the suggestions in it often.

There will be many days when you won't feel it wise to try to use every activity, but no matter what exercises you skip at game time, always try to end the game period with a story. Find other times, too, to tell your child a story: before bedtime or before his nap. Gradually you will be able to hold his interest and attention for a longer time. Gradually he will be able to understand more of what you say. Your stories will become longer and more complex as his language grows.

Short visits to a library or a bookmobile will help build your youngster's interest in books. The library habit is worth cultivating; as deaf children get older, an interest in reading will expand their language.

TO BUY OR BORROW

Lesson II

YOU AND YOUR CHILD

Life and Ways of the Two Year Old, by Louise P. Woodcock. ($3.00) To help you understand, enjoy and appreciate your two year old.

Order from:
Bank Street College Bookstore
69 Bank Street
New York, N.Y. 10014

New Ways to Discipline, by Dorothy W. Baruch. ($5.50) You and your child today.

Order from:
McGraw-Hill Book Company
330 West 42nd Street
New York, N.Y. 10036

Living with Children: New Methods for Parents and Teachers, by Gerald R. Patterson and M. Elizabeth Gullion. ($3.50) Programed instruction to help parents understand situations in which their own behavior or their child's is distressing to them.

Order from:
Research Press
2612 Mattis Avenue
Champaign, Illinois 61820

THE EDUCATION OF DEAF CHILDREN

Play it by Ear, by Edgar L. Lowell and Marguerite Stoner. ($3.50) Auditory training games, for young deaf and hard of hearing children.

Order from:
Educational Materials Department
John Tracy Clinic
806 West Adams Boulevard
Los Angeles, California 90007

Your Ears, by Irving and Ruth Adler. ($2.68) Easy to read information on the ear and hearing.

Order from:
The John Day Company
62 West 45th Street
New York, N.Y. 10036

Hearing and Deafness, by Hallowell Davis, M.D., and S. Richard Silverman, Ph.D. ($10.00) A comprehensive but technical book.

Order from:
Alexander Graham Bell Association
1537 35th Street, N.W.
Washington, D.C. 20007

Tim and His Hearing Aid, by Eleanor C. Ronnei and Joan Porter ($1.50) A picture book for children who wear hearing aids

Order from:
Alexander Graham Bell Association
153 35th Street, N.W.
Washington, D.C 20007

Sound and Hearing, Life Science Library. ($5.95--California Residents add 5% sales tax). Fully illustrated, readable book includes a chapter "When Hearing Fails."

Order from:
Time-Life Libraries
1950 La Cienega Blvd.
Los Angeles, CA 90034

Note: Mention you have a hearing impaired child and are enrolled in this course. Time-Life Libraries will then pay postage and handling charges.

How We Hear: The Story of Hearing, by Judith Fryer. ($3.45) The hearing mechanism and how it works, written for older children and adults.

Order from:
Alexander Graham Bell Association
1537.35th Street, N.W.
Washington, D.C., 20007

TO BUY OR BORROW

Lesson III

PLAY AND PLAY EQUIPMENT

Home Play and Play Equipment for the Preschool Child. Children's Bureau Publication #238, ($.15).

Order from:
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

Toys You Can Make, A do-it-yourself pamphlet describing attractive, sturdy toys you can make in your own home. ($.20).

Order from:
Distribution Center
Umberger Hall
Kansas State University
Manhattan, Kansas 66502

The Complete Book of Children's Play, by Ruth Hartley and Robert Goldenson. ($6.50).

Order from:
Thomas Crowell, Publisher
201 Park Avenue South
New York, N.Y. 10003

The Wise Choice of Toys by Ethel Kawin. ($4.00).

Order from:
University of Chicago Press
5750 South Ellis
Chicago, Illinois 60637

TOY MANUFACTURERS' CATALOGS AND PRICE LISTS

Write to:

Community Playthings
Rifton, New York

Playskool Manufacturing
3720 North Kedzie
Chicago, Illinois 60618

Childcraft
155 East 23rd Street
New York, N.Y. 10010

Judy Company
310 North Second Street
Minneapolis, Minnesota 55401

Creative Playthings
P.O. Box 1100
Princeton, New Jersey 08540

Creative Playthings, Western Division
5757 West Century Boulevard
Los Angeles, California 90045

THE EDUCATION OF DEAF CHILDREN

Hearing Therapy for Children, by Alice Strengand others. ($7.45) Written for educators, this contains information that parents may find of interest.

Order from:
Alexander Graham Bell Association
1537 35th Street, N.W.
Washington, D.C. 20007

CHILD'S OWN PLAY

Lesson V

THE WORLD OF MAKE BELIEVE

Dramatic Play

Deaf children even more than hearing children need opportunities to use their imaginations. Nearly everything they see grown-ups do becomes material for dramatic play. Interestingly enough, by observing the nature of this make believe, you often see yourself as your children see you. Dramatic play also indicates the things your child is interested in learning and gives you clues as to what you should talk about. You can contribute to this kind of play by providing places and "props" for children to use. More importantly, you can offer them some of the words for what they are doing and what they are using.

Playing House

A "housekeeping corner" is a great inducement for dramatic play. Any place -- just a corner of a room -- where your child can safely play with little interference will do. Furniture can be anything from the most elaborate to the simplest makeshift objects. A pad or pillow on the floor might become a bed; low boxes will suffice as chairs. Many household objects may eventually find a role in this housekeeping corner.

There are endless activities in connection with playing house that boys enjoy as well as girls. Washing, ironing, and hanging up clothes; cooking and sweeping; dressing, changing, bathing, and feeding a doll or teddy bear. All of these games are things to talk about to a deaf child. You or an older child playing with him might say: "FIND THE BABY'S BOTTLE," "LET'S SWEEP THE FLOOR," "BRING ME THE DUST PAN," "SUPPER IS READY," "TAKE IT OFF."

Your child will not understand all you say, but he will begin to grasp the ideas of the sentences as a whole. And this is a beginning.

Playing Store

If your child has gone shopping with you, he will most likely enjoy a play store.

This could be primitive in nature. Orange crates or boxes in a convenient corner of the house or yard will do. Empty cans, boxes, or milk cartons from Mother's kitchen take the place of the products she buys in the "real" store. Also, miniature replicas of some grocery products are available in toy stores.

As your youngster plays with you or other children there can be exchanges of products, "pretend" money, and conversation. Many expressions can be used and, in time, added to his lipreading vocabulary. Besides the names of the different foods, words like "hi," "bye bye," "please," and "thank you" can be said many times. Later, when your son or daughter has acquired more language, you may want to use more questions and number concepts. Do not force any learning during these moments of fun. This is a time for your child to relax and enjoy what he is doing. He will learn naturally without being conscious that he is expected to learn. Once he begins to say a few words, you will someday hear them uttered spontaneously as he is playing.

Playing "Dress-Up"

"Dressing up" makes playing house or store even more inviting. A "dress up" box will be appreciated for years. Hats, scarves, handbags, old shoes, dresses, shirts, and jackets all go to make up a collection of costumes for boys and girls alike. With a little imagination, a youngster becomes a mother, a father, or a storekeeper. In fact, he or she may become a policeman, a queen, a cowboy, or a ballerina. If you enter into this make believe world, you will find special opportunities to talk to your child in his new role. Talk about who he is, what he is doing, what he is wearing. Play along with the situation. Take every advantage of this chance to offer your child more language and lipreading practice. If he at some point attempts to say something, pause a moment, and use touch to help him with his speech. But only for a moment. You do not want to destroy his spontaneity and enthusiasm.

EXPERIENCES

FOR YOU AND YOUR CHILD TO SHARE

EXPERIENCES AND EXPERIENCE PICTURES

Experiences away from home can add to your child's learning. These outings or trips, no matter how simple, can be profitable to your little girl or boy.

Experiences for Young Children

An outing to a park or playground
A walk in the woods
A trip to a farm or a ride in the country
A few hours at the lake or seashore
A picnic
A short shopping trip
A visit to a pet shop
A trip to the zoo
A visit to a dairy
A visit to a fire station
Having the car washed at an "Auto Wash"
A walk to the corner mailbox
A visit to an airport
A ride on a bus
A train trip (often a short trip from one town to another, or from a suburban area into the city, can be arranged.
A necessary visit to the doctor or dentist
A trip to a clinic or health center
Visits to a school or speech and hearing center
A visit to a neighbor's or a friend's house
A visit to Grandma's
A walk around the block

To make these experiences as meaningful as possible, talk to your child about the trip.

BEFORE you go,
WHILE YOU ARE THERE,
LATER when you're home again.

Until a deaf youngster understands more language, pictures will be your way of illustrating your conversation as you plan outings and recall them later.

What Kind of Pictures?

Pictures from magazines, travel folders, railroad or airline brochures, advertising pamphlets, or postcards are often suitable. Children's books are also a valuable source of illustrations.

Or better yet, make your own pictures. Quick sketches (children love them!) often prove to be the clearest way of portraying an experience. Included in this section are examples of some "easy" drawings that could be used to illustrate an outing.

Photographs that you take yourself may be your child's favorites. These could include snapshots of people you know or places you go. You can even take pictures while you're ON your trip, to talk about when you get home. If you have a camera that prints pictures instantly,* you can show them to your child at once and help him to associate them with what he sees. The pictures will then have even more meaning for him when you talk about them later.

*The Land Polaroid, Swinger model, is under twenty dollars and will be useful for many years.

Save the Pictures

After a few days, take the old pictures down and save them for another time. They can be mounted on cardboard or construction paper and kept in envelopes or boxes. Perhaps you will want to put them into "Experience Books." It is best to use small composition books, or something about that size. Large scrapbooks with looseleaf pages are difficult for a child to handle and cumbersome to take along when you go somewhere.

Older preschool children may like to help make up their own "Experience Books." They can paste in the pictures and watch as you print a few words under each one. The manuscript alphabet you received with the last lesson may prove helpful. Keep in mind that your child will not read the words, but will only begin getting the idea that they have something to do with the pictures.

How to Use the Pictures

in advance When you plan an outing let your child know where you are going a short time in advance. Show him a picture out of a magazine of a doctor, for example, if you are going to the doctor's office. Or if you are going to the airport, show him pictures of airplanes or postcard views of the airport itself.

at the time Then take the pictures with you and show them to your son or daughter when you reach your destination.

afterward

When you get back home again, you could put the pictures up on a bulletin board, the wall (with masking tape which is not likely to harm the paint or wall paper), or the refrigerator door (held to the metal surface with a small magnet). Then they will be right at hand to show your child when he is interested. "Experience Pictures" used in this way provide for considerable conversation and add immensely to your youngster's understanding.

As your child grows older and attains a certain amount of knowledge of time and the sequence of events, you could use several pictures to illustrate the order in which you will do things on your trip.

Group the Pictures

When you put your "Experience Pictures" into boxes, envelopes, or "Experience Books," they should be grouped according to:

SUBJECT	(Animals, Birds, Cars and Trucks, People I Know, Airplanes, etc.)
or	
PLACE	(The Zoo, The Park, Grandma's House, The Fire Station, The Airport, etc.)
or	
EVENT	(A Ride on a Train, A Walk to the Corner, A Visit to Grandma's House, etc.)

If you keep the pictures in "Experience Books," make a separate book for each category.

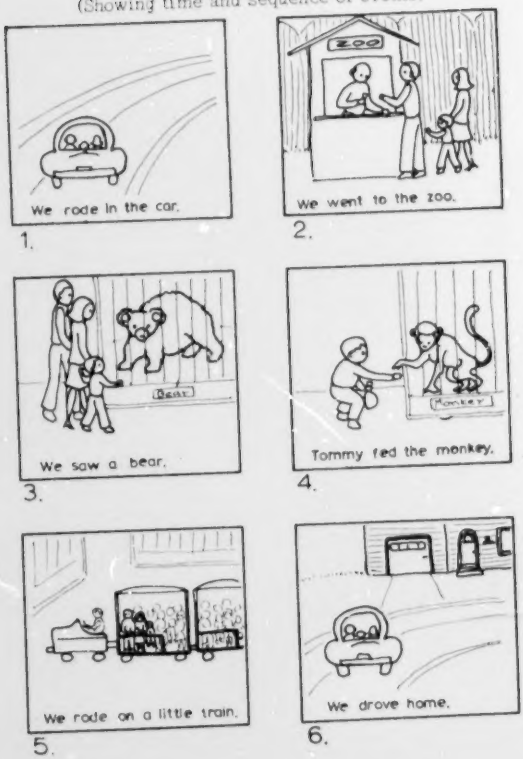
SOME SKETCHES YOU COULD MAKE

For a Picnic

For a Visit to a Pet Shop

For a Trip to the Zoo

(Showing time and sequence of events)



TO BUY OR BORROW

Lesson V

YOU AND YOUR CHILD

Foods for Baby
(Free) Mostly about babies, a section "If Feeding Problems Develop" is good reading for parents of preschool children.

Order from:
Gerber Products Company
Fremont, Michigan 49412

THE EDUCATION OF DEAF CHILDREN

New Opportunities for Deaf Children, By Irene R. and A. W. G. Ewing. ($4.95)

Language for the Preschool Deaf Child, by Grace Harris. ($7.45) For parents and teachers of children who have made a beginning in acquiring language.

Order from:
Alexander Graham Bell Association
1537 35th Street, N.W.
Washington, D.C. 20007

Parent Education Film Series, parent attitudes and communication for deaf children. Free to parent groups.

Order from:
Educational Materials Department
John Tracy Clinic
806 West Adams Boulevard
Los Angeles, California 90007

FOR YOUR CHILD

Tommy and Tess Take a Train Trip
(A coloring book; FREE)

Order from:
Association of American Railroads
Transportation Building
Washington, D.C. 20006

I Went To The Hospital, ($.30)

Order from:
Parents Committee
Box 23
Ithaca, N.Y.

Johnny Visits His Doctor, ($.50)

Johnny Goes To The Hospital, ($.35)

Johnny's First Visit To The Dentist, ($.50)

Order from:
Health Education Department
Children's Hospital
314 Longwood Avenue
Boston, Massachusetts 02115

TO BUY OR BORROW

Lesson VII

YOU AND YOUR CHILD

Slow To Talk, by Jane Beasley, ($3.00) Not written for parents of deaf children; this book has general discussions of attitudes, feelings, and language development.

Order from:
Bureau of Publications, Teachers College, Columbia University, New York, New York 20027

Your Child is a Person, by Stella Chess, M.D. and others. ($4.75) How individual children meet situations, and how parents' attitudes affect children.

Order from:
The Viking Press,
625 Madison Avenue
New York, New York 10022

Also in paperback. ($.95)

Simon and Schuster, Inc.
630 Fifth Avenue
New York, New York 10020

Fathers Are Parents, Too: A Constructive Guide to Successful Fatherhood, by Oliver S. English. ($.50)

Order from:
Belmont Books
66 Leonard Street
New York, New York 10013

The Magic Years, by Selma Fraiberg. ($4.50) Personality development in the first five years of life; some typical problems of early childhood.

Order from:
Charles Scribner's Sons
597 Fifth Avenue
New York, New York 10017

THE EDUCATION OF DEAF CHILDREN

The ABC of Auditory Training, by Sister James Lorene Hogan. A classroom manual for children ages 5-9; discusses the ability of deaf children to respond to sound.

Order from:
St. Joseph's Institute for the Deaf
1483 82nd Boulevard
University City, Missouri 63130

FOR YOUR CHILD

God Loves Us - A picture book of right and wrong, by Helen Woodward and Doris Wilkins. ($1.50)

Order from:
Alexander Graham Bell Association
1537 35th Street, N.W.
Washington, D.C. 20007

TO BUY OR BORROW

Lesson X

YOU AND YOUR CHILD

How To Help Your Child Learn, by Beatrice M. Gudridge. (fifty cents)	Order from: National Education Association 1201 16th Street, N.W. Washington, D.C. 20006
Parents' Magazine. Articles of interest to most parents. (Year's subscription: $4.00)	Order from: Subscription Office Parents Magazine Bergenfield, New Jersey 07621
Pamphlets about children and family life. (Free list on request)	Order from: Institute of Child Study University of Toronto 45 Walmer Road Toronto 4, Ontario, Canada

AUDITORY TRAINING FOR DEAF CHILDREN: SONG BOOKS, RECORDS, RHYTHM INSTRUMENTS

Catalog listing records, song books, and rhythm instruments that may be useful in auditory training. (Free to parents) A visit to this Center is worthwhile.	Order from: Children's Music Center 5373 West Pico Boulevard Los Angeles, California 90019
The Little Singing Time, by S. Coleman and A. Thorn. ($3.50)	Order from: John Day Co., Publishers 200 Madison Avenue New York, New York 10016
Learning to Listen: auditory training record for preschool deaf children. ($1.25 in U.S. California residents add 5% sales tax)	Order from: Educational Materials Department John Tracy Clinic

Other Records:

Choose records by listening to them. Select music with a strong beat -- marches, for instance. As the child develops skill, try music that contrasts in volume, pitch, or tempo. Sound effect records provide good listening experience. Nursery rhyme or story records are usually suitable only for the hard of hearing child. Most young deaf children cannot follow the fast narration. Choose a "talking" record only when the speech is at a slow, unhurried rate of speed.

Musical Instruments:

Rhythm instruments like those used in kindergartens: drums, tambourines, cymbals, triangles, wooden tapping sticks or sandpaper covered blocks, can be obtained in a musical instrument store, a kindergarten supply house, or a toy store. Consult the yellow pages of your telephone directory, ask a kindergarten teacher for information, or write to Children's Music Center.

Learning To Talk While Developing Motor Skills

ALICITA HAMILTON is the demonstration teacher and supervisor of the Preschool for Children with Communication Disorders at the University of Denver Speech and Hearing Center. PRIDE ANDERSON is a member of the Health, Physical Education and Recreation Department and served as both consultant and teacher in implementing motor skill training with the preschool children. KAROL MERTEN is a member of the faculty of the Department of Communication Disorders and supervises the speech therapy of the communication handicapped preschool children.

At the University of Denver's Speech and Hearing Center, special young children attend a daily preschool program designed to remediate a variety of communication handicaps. The curriculum of the preschool is open-ended, and self-selected activity at play centers both indoors and outdoors is emphasized. The primary goal of the preschool is to provide language stimulation for the children in a natural way.

In 1969-70, with the help of the University's Department of Health, Physical Education and Recreation, it was decided to emphasize and experiment with movement education. The preschool youngsters were systematically introduced to a variety of basic activities selected to promote the acquisition of new motor skills. The plan was to encourage the development of language while increasing motor competence. The curriculum included activities on the trampoline and tumbling mats, mother-child swimming practice, and rhythmic work, as well as the usual opportunities for climbing on a jungle gym, throwing balls, etc. Emphasis was placed on all aspects of growth (physical, intellectual, social, emotional) as interrelated.

Facilitating Language Development

In implementing the motor skill training program for use with special young children, the role of the teacher was defined as that of architect, participant, and reinforcer. It was her obligation to provide language stimulation as narrator of the child's activities. She talked about what the child could do, what he was doing, and how he was doing it (exclusive of value judgments), in a planned effort to enrich both his receptive and expressive language. Demands for speech were minimized. Special emphasis was placed throughout the project on the use of prepositions as a way of maximizing learning about spatial relationships, directionality, and laterality.

Narration is an important, natural aspect of the development of language. Children learn first receptive language skills—listening, comprehending, perceiving. Then, they move on to the development of expressive language skills —talking and communicating. The best example of early language learning is the mother-child model. Most mothers narrate spontaneously what their child is doing, seeing, and feeling, and then expand on the child's utterances as he starts to talk. The very young child may not understand the mother's specific words, but he does develop a functional equivalent, and so understands the whole rather than specific parts. Such narration and expansion avoids formal stereotyped, repetitious, demanding exercises which would restrict and limit the child's exploration of his world and his place in it. If language is to be vital, it must be acquired naturally.

Implementing Motor Skill Training in an Open-Ended Program

In an open preschool, there are countless opportunities for narration about the child's activity as he engages in self-selected tasks, particularly when the tasks involve physical activity. It is easy and natural to narrate for a child as he tries out jungle gym, climbing dome, walking boards, trampoline, swimming pool, activities on a tumbling mat, or when he is pretending to be a frog, seal, crab, inch-worm, airplane, leaf, or tugboat. Walking, running, sliding, rolling, jumping, hopping, tossing, pushing, pulling, hitting, swinging, climbing, hanging—each provides new opportunities for language stimulation. As meaning is ascribed to the words narrated, the child absorbs them through use. As a result, considerable contextural variety can be presented in relation to different tasks, exposing the children to a large vocabulary, and providing contrasts in concepts such as up/down, heavy/light, in/out, under/on.

Daily written records were kept at the University of Denver describing tasks, equipment, participation of the children, adult narration, and verbal responses of the children. Examples of narration from the record include:

Task: Jumping on tire (on playground)

Adult narration: Can you jump on the tire? You are jumping on the tire. See how high Tommy jumps! That's a good trick!

Child's comments: I ready to jump now. I jump. I know a trick!

Task: Climbing on jungle gym

Adult narration: Can you climb up? Look how high you are! You went up the ladder.

Child's comments: I'm climbing up here. That's too high!

Swimming proved to be an ideal way to encourage positive parent-child interaction and to involve individual mothers with their child's progress and friends in school. Teachers moved freely within the group serving as models for stimulating language, teaching relaxation in the water, and offering support in developing warm mother-child relationships centered around a learning task. Mothers interacting with other mothers discovered mutual interests and support for shared problems.

Goals related to physical, social and emotional growth seemed realistically conceived. Children changed during the year, from a hesitant, unsure approach to new motor tasks to enthusiastic competence and a willingness to persevere at difficult activities. While coordination gains varied from child to child, individual satisfaction derived from concrete achievement was obvious among all participants and commented on by the children's mothers. Success experiences were many so that self-esteem was enhanced. As evidence, the children began to approach new tasks with generalized self-confidence. This was particularly evident in relation to work on the trampoline.

Countless opportunities were provided through movement education for facilitating language development, and it was easy to stress narration in a natural way. However, language stimulation in this sense was an established integral part of the daily preschool session so that motor skill training was introduced into a setting where these concepts were already an important part of the curriculum. Narration was offered continuously but unobtrusively, as the children proceeded through the preschool routines and activities; as they fingerpainted, worked with clay, engaged in dramatic play, cooked, worked with blocks, or tended the gerbils and canary. Movement education became another way to enrich the curriculum. In addition, each child received daily individual speech therapy designed to remediate his special difficulty. So, while Center records show objective data to support the conclusion that language growth was demonstrated by the children, the stimulation for growth came from many sources. The total program was brought to bear on the remediation of a specific communication disorder in a given child.

This program may have generalized relevance for many early childhood educators of "normal" children as well as for those concerned with the "special" or "disadvantaged" young child. In either case, it is significant that on a national level children with learning problems of various kinds seem to show particular retardation in the development of motor competency (see "Motor Development and Performance of Emotionally Disturbed Children," by Hally B. W. Poindexter, in the June 1969 JOHPER, pp. 69-71). Some are as much as two to four years behind the "average" child. There is obvious need for early intervention. The program described here is one response to such a need on the part of the child with a communication handicap.

Teaching Physical Education in Schools for the Deaf

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Adaptations of physical education teaching techniques used in special schools for the deaf may help others—teachers and students alike—involved in physical education programs. One extremely important factor is increased use of demonstrations. Teachers may have to demonstrate for younger children; most older children are able to understand directions and can demonstrate for the class.

Also important is more extensive use of bulletin board displays. Charts and pictures with captions can help the child to better understand what is expected of him. Demonstrations and displays are far more beneficial than long, detailed explanations; they save learning time when students are eager for activity. As children grow older, they need new vocabulary words written on the board for them. Rules discussions come later.

Slight changes are used in calling a class to order or getting students' attention when necessary. Instead of blowing a whistle, the teacher of deaf students will find that snapping lights off and on will quickly attract the pupils' attention. Always face the class when speaking and arrange the class so all pupils may see the teacher's lips and the chalkboard or bulletin board if necessary.

Class size is an important factor. Generally speaking, classes in the primary grades should be small and limited to one homeroom only; usually this involves eight to ten children. In the middle elementary and junior high grades, classes may range from ten to sixteen. If classes get much larger communication is more difficult, and children lose something in the learning process. (The author assumes that classes are in an oral school where speech and speechreading are emphasized.)

This size class allows students to adequately see demonstrations. Observation is an important learning tool of the deaf. This also enables them to have much more individual help when it is needed. Small classes help make it possible for most children to participate the entire activity period; fewer substitutions are necessary. This is important because the deaf individual, for the most part, seems to love activity; it helps him let off aggressive tendencies in approved ways. Hearing people can just say a few words to let off steam, but the young deaf child does not have this ability. In addition, he sometimes does not understand just what is going on in the classroom. Consequently, he welcomes physical education, and the chance to run and play. Teachers should plan for as much pupil participation as possible.

The deaf child's game interests may be characteristic of younger children, perhaps because of limited preschool play experiences, delayed social maturation, or difficulty in understanding the more complex rules of team games because of the vocabulary involved. Consequently, team play usually comes at a later age for many deaf children. It is the teacher's responsibility to encourage the children in team play, and to help them learn rules and vocabulary; he may have to modify some games and rules.

An example is basketball for girls. Assume the class has had lead-up basketball games, and the teacher wishes to introduce team basketball. He may do this with a film to give the girls some idea of how the game is played. Then, instead of proceeding immediately into official rules, progress in easy stages. Have the class play six court basketball to introduce some rules and vocabulary about fouling, traveling, out-of-bounds, in-bounds, so the girls play a team game with a minimum of rules.

After this game has been mastered, proceed to the old form of basketball with three forwards and three guards on each side of the floor—no roving players. At this time, introduce more terminology and new concepts. The final step is then regulation basketball. A few classes may be able to accomplish all three steps in one basketball unit. However, for many classes, it will probably take two basketball units over a period of two years; some groups may take even longer. For boys, this much preliminary instruction is usually not necessary since they seem to understand basketball much faster than the girls. Most boys can play regulation basketball in the later elementary years, although they need help on vocabulary and rules.

Generally, softball and volleyball are much easier for the deaf child to comprehend. The learning process is not so

long and difficult, and they can play these team games in the fifth or sixth grade. The explanation for the difference between the learning of basketball as opposed to softball and volleyball seems to lie in the fact that the pace is much faster in basketball. Everyone is moving, whereas in the other two games not all players are active at the same time. It is also much easier to keep your eye on the ball and to watch the other players than it is in basketball.

Official signals given in rule books are excellent for all these games. In basketball, a teacher may want to improvise one of his own to stop play when an infraction occurs; use this in place of a whistle. The signal may be a palm held up in the "stop" position or a waving motion of one arm. The latter movement usually attracts the players' attention, and they stop readily. The referee may signal the infraction and also say what it is, such as, "Traveling—Blue out."

For most other activities, little adaptation is necessary except in rhythms and stunts and tumbling. In the rhythms unit, auditory training should be started early to enable children to distinguish between slow, heavy walking; running; skipping; marching; etc. One way to acquaint children with a particular rhythm is to play the record and let children feel vibrations off the floor or the phonograph. Some may be able to distinguish it with the use of their hearing aids.

The next step with young children is teacher demonstration followed by participation with the class. Gradually, different rhythms can be introduced. Constant review of past rhythms is necessary. The teacher should always play the record first, then ask the class what rhythm it is; he should not tell them! As the children get older, finer variations and discriminations may be introduced and required.

Mixers and folk dances follow basic forms of locomotion and the same general method is used. In the beginning, it is helpful for the teacher to participate in dances, so the children can establish the correct beat by watching and following him. Teacher participation is also beneficial in square and social dancing since the students profit so much from observation.

Stunts and tumbling need greatest adaptation in teaching technique. Students can do the same things as hearing children, but activities have to be presented and taught differently. Here again, demonstrations are extremely vital. With young children, it may be teacher demonstrations, but as students get older, pupil demonstrations should be encouraged. It is necessary to remember that the deaf child gets much more out of a demonstration than an explanation. Demonstrations should be repeated more than once and should be clear-cut and correctly performed.

The deaf child does not benefit from coaching suggestions as the act is in progress. He must know what he is to do and how to do it before he starts the activity. This is particularly true in cases where the head is inverted or where there is danger to the child if he performs the act incorrectly. Good demonstrations and explanations help him know what is expected of him. Even then, the teacher has to be unusually alert and ready to prevent accidents.

Class size should be considered in stunts and tumbling for safety reasons, and to enable the children to participate as much as possible during the class period. Because of the loss of coaching suggestions, it may be wise to have each child do the activity once or twice for the teacher before he lets him go to another mat and perform by himself. If a class is too large, the teacher cannot check them all, nor can safety rules be observed properly.

Simple stunts (i.e., Turk stand, the human ball, the inchworm, etc.) may be performed by the class together since there is little danger of the child's being hurt in these activities. Above all, safety should be stressed in this unit.

Most games can be played by young deaf children with few changes. However, tag games involving speech (such as hill dill, fire on the mountain, birdcatcher, brownies and fairies, or crows and cranes) should be avoided since "it" is usually too far away for children to lipread him, so the game loses its effect. The children get just as much enjoyment out of playing a tag game where everyone is on one line, with "it" in the center; players then try to run to the opposite line without being tagged. If they are tagged, they also become "it" so that the last one tagged is the new "it." This game involves the principles of most of the other games mentioned, and it can be used successfully with a large number of deaf children (as at recess period) without the misunderstandings that arise when they play tag games involving speech.

Other games which would be unsuccessful are dog and bone and last couple out. In the former, the child seated on the chair would never hear anyone sneak up to get the bone, so the game is pointless. In the latter, the last pair would never hear "it" call, "last couple out," and the game loses much of its flavor if "it" is allowed to turn around. A possible modification would be for "it" to raise his hand but "it" still could not hear the couple running up in back of him, and the game would not be too successful.

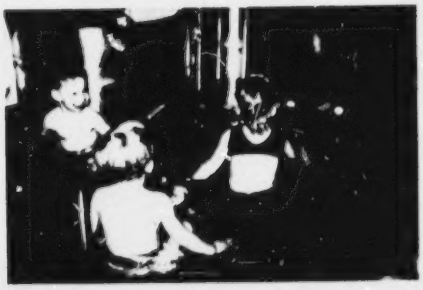
In a modification of drop the handkerchief which has proved successful players stand with hands clasped in back of themselves. "It" puts the handkerchief or beanbag into the hands of the player he chooses. This gives the second person a better chance to tag "it" because he is not handicapped by lack of hearing "it" run behind him, causing him to get off to a slower start.

Red light may be modified by having "it" turn his back on the other children in line, walk forward without counting, and turn around suddenly whenever he wishes. Anyone he sees moving has to go back to the starting line.

Call ball is usually more successful if the player in the center does not call another's name, but just throws to the next one in the circle going around the circle either clockwise or counterclockwise. Otherwise "it" forgets and calls someone's name when he has his back to the player and confusion arises.

Most other games of low organization require no adaptation for the deaf. They enjoy snatch club, guard the clubs, circle stride ball, dodge ball, relays, newcomb, partner tag, etc., without modification. The same is true of lead-up games—horse, "21," three hole basketball, volley tennis, volley keep-up, softball work-up, hit pin baseball, line soccer, circle soccer, etc.

It is important to remember in teaching physical education to deaf children that these children enjoy activity just as much as, if not more than, hearing children, and they can participate in many of the same activities with little or no modifications. At times the teacher may need more than the usual amount of patience or ingenuity in presenting new techniques, but he will be amply rewarded as he watches the children play. They enjoy *normal* activity; let them have as much of it as possible!



Introduction to Swimming for the Deaf

By Louise Keffer, Director of Safety Program, American Red Cross
Evansville, Illinois Chapter

The Rehabilitation Center in Evansville, Indiana, has a deaf-oral nursery school which preschool deaf children (2-5 years of age) regularly attend for therapy. When the Center asked our Red Cross Chapter to consider conducting a special swimming program for these children, we set about to discover the special challenges involved. Observing them at play, we quickly learned that the children were deaf but *vocal;* squeals of delight were common. These children could lip read, finger spell, read skill cards, and use sign language, so communication was no problem. They obviously understood some words and simple commands, though the therapist advised us that they might hear us say a word and learn to repeat it without knowing what the word meant. They were well adjusted, both to their handicap and to social groups. As in all groups of children, there were leaders and there were followers; aggressive children and retiring children; and willful children who, when they desired not to hear a command or reprimand, simply tuned you out by turning off their hearing aids! Of course, they didn't wear hearing aids in the pool, so we had to find other ways of tuning in. We were told that we might have trouble convincing the children to remove their prized hearing aids; one youngster cried for two days before her parents discovered that she was upset because her aid was broken.

After reflecting upon the situation, we decided to begin the swimming program at the Center. We considered beginning with plastic dishpans filled with water, but remembering their activity, and the problem of control without communication, decided that might create a minor flood! Then we hit upon the idea of using the Hubbard Tank. There were valid reasons for using it—the surroundings were familiar, the Hubbard Tank wouldn't present an unexpected, frightening, wide expanse of water, and the people who removed those precious hearing aids were therapists the children knew and trusted. We counted on the novelty of the situation to overcome objections, and it did just that.

We filled the 5,000-gallon tank three-quarters full, had the water temperature at 88°, and floated a dozen ping pong balls on the surface. Trying to combine words with actions, we secured a child's attention—sometimes having to hold his face toward ours—carefully articulated the word *blow*, and then gently blew a ping pong ball across the water. Comprehension wasn't long in coming, and soon ping pong balls were being blown all around the tank. The next step was to say *blow* and put our mouths underwater and blow. Before we left the tank that first day, all but one youngster had had at least his mouth underwater. We felt as though we had accomplished a lot. We had quite an audience that day—parents, physical therapists, speech therapists, audiologists, psychologists, and social workers, none of whom stayed dry. Preschoolers can splash a lot of water! Visiting the dried and dressed children in the nursery before we left, the smiles, waves, and soft bye-byes were both encouraging and rewarding.

After two sessions in the tank, the transition to the YWCA pool was made with ease. They knew us, they saw those floating ping pong balls, and the pool was just a big Hubbard Tank. Working with children on a one-to-one basis, our instructors communicated by demonstration. We kept reminding ourselves to articulate carefully and to keep commands simple. We hunted for ways to motivate without overchallenging. The children learned both the sound and the meaning of some words associated with swimming and put them into action. Vocabularies may have been limited, but they recognized the look of approval on our faces. They had a tendency to tune us out if we were advocating something they didn't want to do, but in general, they were willing and cooperative. For us, working with these youngsters has been one of life's most rewarding and interesting experiences.

programs for handicapped

The Deaf Student in Physical Education

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Normally, the news that a high school teacher has a new pupil assigned to his physical education class causes little or no disturbance at all. The teacher may say, "That class is big enough now—not another one." Or he may fuss at the extra work connected with assigning the pupil a locker, filling out a registration card, etc. However, during the course of the period, the student is duly enrolled and briefly oriented to the program. The teacher soon forgets him amid the many other pressing duties of a school day.

How would the teacher react if this pupil were deaf? What if the teacher has had no encounters with the deaf? Immediately, upon hearing that a new student is deaf, the average teacher's first reaction is, "How will I teach a deaf person? I won't know what to do with him. He won't be able to play with the rest of the class. How do I talk with him?" These and other anxious thoughts keep coming to mind.

Assume a deaf student has been assigned to one of your physical education classes. You have had no specialized training in the field of deaf education; it is necessary to orient your thinking and planning to provide for this nonhearing child. How may you help the student develop to his fullest potential?

First, the teacher should remember that the majority of deaf children are physically sound. With the exception of deafness, there are no major physiological differences between deaf and hearing children. True, some deaf individuals may have additional handicaps such as cerebral palsy or mental retardation, but if this were the case, they would not likely be found in a secondary school physical education class.

If no other handicaps exist, the deaf student in comparison to the hearing one may exhibit certain physical characteristics which are important to the physical educator. He may have a high level of physical energy and show quicker movement. He will probably show an unusual ability to imitate precisely the movements of others. His balance may be poorer, and his lung capacity may be underdeveloped due to decreased breathing because of lack of speech. He may show somewhat superior hand steadiness and control.

Although deafness is often a purely sensory defect with little or no limitations on intellectual ability, certain differences may appear. The deaf student may have some difficulty in understanding abstract ideas and reasoning. In addition, it is not unusual for deaf students to enter high school at seventeen years of age. The teacher should not assume that this individual is a slow learner but should realize this is a normal entrance age for the deaf. Educational achievement has been slower because of the very lengthy process of language and speech acquisition.

There may be a wide gap between the mental potential of the child and his actual scholastic attainment. Lower scores or more inaccurate ones may result on verbal I.Q. tests. The deaf child uses sight as a very important tool. He may think in terms of pictures and symbols, not words.

With this background in mind, how can the physical education teacher best help the deaf student? Have the individual near the front of the squad line so he may lipread well; use a normal tone of voice and do not overexaggerate mouth or facial expressions. The teacher should not turn his back when speaking to the class, or he will isolate the deaf student completely.

Even remembering all these things, there will be times when the deaf student does not understand what has been said. Perhaps another pupil could be asked to help in these instances by repeating what was said, or by taking written notes of rules discussions or of new and unfamiliar terms. The deaf boy cannot lipread and write at the same time.

Other students should be encouraged to offer help to the deaf student when necessary. The deaf student benefits, and, equally important, the other class members develop a positive attitude toward helping a handicapped person. Sometimes, the deaf student may become too dependent on other students; the teacher should be alert to this possibility. Like any other student, the deaf boy should do as much as possible for himself.

There are some general restrictions and limitations in physical education for the deaf student. Some deaf persons may experience dizziness and have poor balance. Therefore, during stunts, tumbling, and apparatus units, their participation may be limited. They should be well supervised at these times. Activities which improve body balance, coordination, and control should be stressed for the deaf student.

Students Help Alleviate Accidents

For several reasons, there seems to be a higher incidence of accidents involving deaf students. In part, this is due to their inability to hear warnings and to hear others who are out of their range of vision. The teacher may help by telling the rest of the class to be alert for the deaf pupil's unexpected movements so collisions may be avoided as much as possible.

Some adolescent deaf boys may not be interested in strenuous activities such as running, rope jumping, exercises, and calisthentics because of poor chest development and resulting breathlessness. The physical educator should be aware of this problem and introduce these activities gradually. Breathing exercises may be suggested for the boy to do at home to increase his physiological capacity. The teacher will find outside assignments like this are taken seriously by most deaf students. The majority of them really want to perform well in physical education class, and they will try to improve their ability.

One safety factor which the teacher should stress is the removal of hearing aids during physical activity. Quite often, the pupils like to keep their aids on so that they may hear better. The danger involved is that a ball may hit the ear mold and cause further harm to an already damaged ear. Also, the aid may be broken, and hearing aids are expensive to replace.

There are some modifications and characteristics of specific activities for the deaf. In basketball, the teacher should realize that the individual with poor balance may have difficulty stopping and changing directions. Also, he will not hear the whistle, and his play may appear more aggressive. Perhaps the teacher could work out some swift method for indicating the whistle has blown. Teammates could run over and tap him on the shoulder and say, "The whistle blew." Here again, understanding is needed by the other members of the class and by the instructor.

Some difficulty may be experienced in softball because the players cover such a wide area and coaching suggestions cannot be heard or lipread. If possible, a nearby teammate could be asked to relay the teacher's message to the deaf player.

A similar space problem exists in

soccer, except that the players are even more widespread and may have their backs to the referee. Using another player to tell the deaf what the teacher has said or that play has stopped is one solution to the problem.

If a piano is used in dance, the deaf student should be allowed to place his hands on it so he can feel the vibrations and be able to establish the rhythm. If a phonograph is used, the rhythm could be established by demonstrating and counting-out the beat, and then having the student do it. In square dancing, the deaf individual cannot hear the caller. However, after he once knows the dance pattern, he could be instructed to watch his partner for cues.

As a group, deaf students do well on physical fitness tests. However, on those tests which involve balance or quick change of direction, scores are apt to be lower than average.

In stunts and tumbling, more individual help and supervision are necessary for deaf participants. It may be wise to modify some specific stunts because of balance problems. It is extremely important to remember that the deaf individual cannot hear coaching suggestions while the stunt is in progress. Thus, a thorough explanation and understanding coupled with a good demonstration are necessary before the individual tries the stunt himself. This point cannot be emphasized enough.

Participation in Swimming

Deaf students may participate in swimming classes. Most school swimming classes operate on the "buddy" system. The buddy assigned to the deaf pupil should be a skilled swimmer and could be one of the gym leaders. The teacher should be sure that the deaf boy knows what is expected of him. It is difficult to give coaching instructions while the activity is in progress. For safety's sake, it is extremely important that the individual have a thorough understanding of the skills involved.

Various other activities such as volleyball, badminton, tennis, and recreational games require little or no modifications for deaf players. They may be performed well by nonhearing individuals and should be a part of every program.

If a deaf student should enroll in one of your physical education classes, realize that with only minor modifications, for the most part, he can participate with other class members. Take a little extra time to understand him, and the effort will usually be rewarded by his deep appreciation.

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XII World Games for the Deaf

LOU PENNELLA has served for 12 years as physical education teacher and coach at St. Mary's School for the Deaf, Buffalo, New York 14214. He was assistant track coach to Head Coach Tom Berg for the 1973 WGD-USA team. He is currently a doctoral student.

During the week of July 20-28, 1973 the XII World Games for the Deaf (WGD) were held in Malmo, Sweden. Under the direction of the International Committee of Silent Sports (CISS) 1190 athletes (961 men and 229 women) competed, representing 32 nations.

The United States contingent, sanctioned by the Amateur Athletic Union and guided by the American Association of Athletics for the Deaf (AAAD), was made up of 191 athletes and officials. Men and women competed in track and field, swimming, volleyball, table tennis and tennis. Men also participated in wrestling, basketball, soccer, field handball, cycling, and shooting.

The International Olympic Committee granted official recognition to the CISS in 1951. The "Deaf Olympics," as they are often called, are held every four years. Like the regular or hearing Olympics, the WGD begins and ends with a parade into the stadium with lots of exciting competition in between.

In 1973 there were many top individual performances among the deaf Americans. Ron Rice, a 17-year-old swimmer from Warren, Michigan, won five gold medals. Leo Bond II, an 18-year-old from St. Paul, Minnesota, won four golds in track and field; he won both the 400 and 800 meter run and anchored the victorious 4x400 and 4x100 meter relays. Kathy Sallade, a 23-year-old teacher from Fort Lauderdale, Florida, captured three gold medals in swimming. Dale Johnson, 34, from Welch, Minnesota, won two golds in wrestling.

World records for the deaf in swimming and track and field were established long ago by the CISS; many of them were broken in Malmo. American records for the deaf are established by the AAAD; many of these records were also rewritten during the 1973 Games.

Art Kruger of West Hollywood, California, is chairman of the AAAD Committee. Assisting him are Vice-Chairman James Barrack of Towson, Maryland; Secretary F. A. Caligiuri of La Mirada, California; Treasurer Leroy L. Dunning of Cincinnati, Ohio; and Team Director Bill Simpson of Morganton, North Carolina. Kruger, known as the father of the AAAD, spearheaded a drive to raise $2,000 for each participating athlete to finance the seven weeks away from home. Both he and Head Track Coach Tom Berg of Gallaudet College were inducted into the Helm's Foundation Hall of Fame in recognition of their efforts for and devotion to athletics and the deaf.

The athletes trained at Gallaudet College in Washington, D.C. for three weeks. They then trained for a few days in Malmo prior to the actual Games competition. Before leaving for the Games, the U.S.A. team received an official send-off from Julie Nixon Eisenhower. After the Games, the U.S.A. group began a two-week educational tour of Sweden, Denmark, Norway, Scotland, and England.

Most of the athletes on the U.S.A. team were products of residential schools for the deaf all across the country. There are many hearing-handicapped students in day schools or special classes in hearing schools who could have qualified for these Games. Physical educators and coaches in these schools should encourage their hearing-handicapped students to take part in their athletic programs and make them aware of the WGD. They should also make them aware of Gallaudet College, the only liberal arts college for the deaf in the world, and of the National Technical Institute for the Deaf (NTID) in Rochester, New York. Hearing-handicapped students pursue studies at Gallaudet and NTID and participate in an intercollegiate sports program as well. In another university the athlete may never get the opportunity to wear the school's colors.

F. A. Caligiuri made the following comments concerning deaf athletes and international competition:

> It can be argued that there are more worthwhile things to do than, say, run 400 meters on an oval track, swim back and forth in a tankful of water, huff and puff and toss a 16-pound shot—just to win a few pieces of shiny metal and fleeting glory. But, when is a deaf person noticed more than during his school years while he engages in sports competition with hearing teams and when, with increased skills, he participates in international competition with the finest deaf athletes of 40 other countries?
>
> It is a proud moment in the life of an American deaf athlete when, while wearing the uniform of the greatest nation on earth, he commits his brain, skill, strength and spirit to the noble ideals of world competition. But the proudest moment of all comes to those American deaf athletes who, with high honor, face our nation's flag on the victory stand, even though—in the perpetual silence surrounding them—they cannot hear "The Star-Spangled Banner."

The next WGD will be held in Bucharest, Romania in summer 1977. The WGD trials are always held one year earlier in order to have sufficient time for individual fund raising.

For more detailed information concerning the WGD, contact Art Kruger, AAAD Chairman, 7530 Hampton Ave., No. 303, West Hollywood, California 90046; or James A. Barrack, AAAD Vice Chairman, 1525 Cottage Lane, Towson, Maryland 21204.

Complete coverage is given the Games (event, name, time, medal totals, etc.) in The Deaf American magazine, an official publication of the National Association of the Deaf. The editorial office is at 5125 Radner Road, Indianapolis, Indiana 46226. □

Top left: Harold Foster of Washington, D.C., the first American deaf athlete to win the high jump, setting a new world deaf record of 2.01 meters (6' 7").

Top right: Christer Lindsjo, Sweden; Ron Rice, Warren, Michigan; and Bela Panyi, Hungary, after Rice won the 100 meter freestyle—one of his five gold medals.

Bottom: These members of the 400 meter medley relay team won a total of 14 medals. Left to right: Shirley Hottle-Johnson, St. Paul, Minnesota; Lynn Ballard, Pelham, Manor, New York; Jozefa Muszynski, Newark, New Jersey; and Kathy Sallade, Ft. Lauderdale, Florida.

TAKEN FROM Physical Education and Recreation for Handicapped Children: Proceedings of A Study Conference on Research and Demonstration Needs. Washington, D.C.: National Recreation and Park Association and the American Association (now Alliance) for Health, Physical Education and Recreation, February 16-19, 1969.

STATUS OF PHYSICAL EDUCATION FOR THE HEARING IMPAIRED

Peter R. Wisher

Introduction

It is difficult, in the time allotted, to present a comprehensive report on the status of physical education for the deaf. It should be mentioned that many of the observations expressed here are based upon my personal experiences with the deaf, in a variety of capacities, over a period of fourteen years. Other sources of information were informal studies by physical education majors and teachers at Gallaudet College. Research of a formal nature in this special area is practically non-existent.

Definitions

The term "physical education" is used in a broad sense to include not only physical education, but health and athletics as well.

The terms "the deaf" and "the hearing" are used constantly, as though a dichotomy existed. The range of deafness, or hearing, extends from those individuals who are profoundly deaf through those who possess normal hearing. The deaf or hearing impaired are those persons "... in whom the sense of hearing is non-functional for ordinary purposes in life" (1). Mention should be made of the hard-of-hearing," ...those in whom the sense of hearing, although defective, is functional with or without a hearing aid" (1).

Since there appears to be some difficulty in classifying persons with impaired hearing, it follows that estimates of the total deaf population in this country vary with each investigator. Reported estimates range from 120,000 to 15,000,000. The true total is probably between these two extremes. One recent study estimated the deaf population in the United States to be "approximately 8 million" (2).

The following discussions of the deaf and their education, characteristics of the deaf and the status of physical education are presented to provide insight into the current subject.

Education

The deaf are educated in private and state residential schools or in private and public day schools or classes. Students with the ability to pursue higher learning attend regular "hearing" colleges, Gallaudet College, the only liberal arts college exclusively devoted to the education of the deaf, or Rochester Technical Institute, where a technical education is now available to qualified deaf.

The manner of communication in the education of the deaf is the most important single consideration and the most controversial. Persons uninvolved in the education of the deaf find it difficult to understand the gap between the oralists and the manualist. The former group believes that all communications with and between the deaf should be oral, using only speech, speech-reading, and, of course any auditory equipment that could be helpful. The manualists believe that the interests of the deaf are best served by using manual communication, i.e., fingerspelling and/or the language of signs.

The simultaneous method is used at Gallaudet College. In this system, speech, manual alphabet and the language of signs are used simultaneously. My experience leads me to believe that many of the problems associated with the deaf and their children can be traced to communication difficulties. All deaf children should learn speech to the extent they can. They should also learn manual communication as a second language. In my fourteen years at Gallaudet, I have never had students with whom I could communicate exclusively with the oral method.

Characteristics

The deaf have been misunderstood in the past, and prejudicies and unfounded opinions are still prevalent throughout the world. For example, the terms "deaf and dumb" and "deaf-mute" are not only repugnant, they are inaccurate. Most deaf persons have some speech. In my experience with the deaf, I have discovered that there are more "hearing and dumb" than there are "deaf and dumb".

Contemporary educational practices tend to perpetuate misconceptions and consequently retard progress. Since many of the characteristics of the deaf discussed here may be the result of imperfect communication methods, the validity of these findings may be blurred:

1. Normal acquisition of language is not possible for the deaf. The degree of hearing loss and age of onset are influencing factors. (4, 6, 9)
2. Deaf children tend to be better adjusted if their parents are deaf. (4, p. 184)
3. Language difficulties lead to social difficulties. These problems are reflected in relations with parents, peers, and society in general. (6)
4. Extremes in behavior are noted; these range from complete withdrawal to violent outbursts of rage. (3, 4, 5, 6)
5. Regarding educational advances, the deaf appear to be from four to seven years behind their hearing peers. (7, p. 213)
6. Most hearing impaired adults use either the language of signs or the simultaneous method of signs, manual alphabet and speech. (4, p. 119)
7. On the basis of three studies (4, 5, 6) the following traits are reported: social immaturity, impulsive behavior, egocentricity, rigid standards of behavior and etiquette, and certain deficiencies with respect to abstracting and conceptual ability.
8. Children, regardless of the means of communication used in a particular school, tend to communicate manually when not supervised. (6, p. 13)
9. One researcher (9) found that the deaf are concerned more with the attitudes of their peers than with those of authorities.

Status of Physical Education for the Deaf

Physical education has played an important role in the education of the hearing in this country; this fact does not seem to hold true for the deaf. As early as 1882, Swiler (8) at the Convention of Instructors of the Deaf, pointed out the need for an adequate physical education program. In 1895, Brown (8) at the Fourteenth Convention, outlined the urgency of initiating health and hygiene classes for the deaf. At present, many residential schools for the deaf have neither physical education programs nor health classes. There is an emphasis on a few varsity sports, especially basketball.

Approximately 98% of the students in residential schools terminate their education at this level, and consequently their education for life is incomplete. Physical education provides the deaf with an environment for learning that is unsurpassed. Many deaf get little satisfaction from television, radio, concerts, movies, and play–they tend to involve themselves in activities that are visually oriented, such as sports, outdoor activities, social gatherings and others.

Incidentally, in my opinion the observations that the deaf dance to vibrations and that they have poor balance are folklore. It is true that the deaf feel vibrations, but they do not dance to them. As for poor balance, if the balance mechanism in the ear is affected, balance will also be affected. However, on the college level, I have observed negligible balance problems in those enrolled in regular physical education classes. There are, of course the multiple-handicapped in whom balance may be a factor.

Some recent informal studies by physical education majors and teachers at Gallaudet College revealed the following:

1. All schools support at least one varsity sport, basketball.
2. In one study, 70% of the schools supporting a physical education program used only part-time teachers.
3. A survey of freshman boys taking health at Gallaudet College revealed that 55% had never had a health class prior to college.
4. Incoming students are given the national fitness test. Averages in all test items were below national norms for the hearing. After one year of physical education, on a re-test, the deaf surpassed the national norms.
5. In schools where physical education programs were in effect, some question regarding the curriculum emerged. In one of my classes consisting of 8 students, none had ever had tennis instructions; one girl informed me that in her physical education classes, the girls only played basketball all year.

The program of physical education on the college level is very encouraging. For example, no financial help is given to varsity athletes; 30% of the student body participate in inter-collegiate athletics, and another 40% take part in intramurals; all students take two years of required physical education and one year of health. Gallaudet is a member of the NCAA, Mason-Dixon Conference, and the Maryland Intercollegiate Conference; the boys take part in ten varsity sports and the girls in six. Additionally, the "Deaf Olympics" are held every four years and a national deaf basketball championship is held yearly.

Conclusion

In view of the foregoing, I offer the following recommendations for your consideration as possible areas for research:

1. A survey of existing philosophy and practices in residential and day schools for the deaf should be undertaken to reveal any gaps between the ideal and the real.
2. Sustained dissemination of information is needed by agencies to draw administrators' attention to problems in this area.
3. There is need for the development of demonstration centers and tools for assessing students, programs and teachers.
4. The advisability of qualified deaf individuals becoming involved in the planning, implementation and operation should be studied.
5. Current learning and teaching practices should be tested, especially the most central issue in the education of the deaf–communication.
6. An assessment of all types of visual media should be made. Innovative devices should also be tested for effectiveness and the practicality of self-teaching machines needs exploration.

Statement

"No child can be considered educated unless he has acquired in childhood and youth familiarity and skill in a large number of games and sports which give satisfaction and lead to their pursuit in recreational ways out of school" (10, p. 354).

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ANECDOTES BY ROY K. HOLCOMB

The following anecdotes were selected from Roy K. Holcomb's 95 Hazards of Deafness. With the author's permission, anecdotes are presented to give hearing readers a feeling for some of the situations persons with hearing impairments may experience in everyday activities. Mr. Holcomb, Director of the Margaret S. Streck School for the Hearing Impaired, Delaware State School for the Deaf, is deaf himself.

ENCOUNTERS WITH STRANGERS

You are introduced to a stranger. You do not "catch" the name after several repetitions. You try to alibi your way out of the embarassing situation by saying that people's names are often difficult to speech read unless they are easy ones like Smith, Brown, Reed or Jones. Then the stranger's name turns out to be Smith, Brown, Reed or Jones.

You are enjoying yourself with some deaf friends and some hearing guy gives you a note inquiring,"Can you read and write?" Of course you write back to him that you can neither read nor write.

ENTERTAINMENT, SPORTS, & T.V.

You pay full admission to movies, night clubs, or other places where sound of one kind or another is an important part of the price. Then you sit back and "watch" what your money has bought.

A news flash caption crosses your T.V. screen. Dialogue which you cannot hear follows. You can imagine all kinds of things happening from Martha Raye winning a beauty contest to Martians invading New York City. You must wait until you read the next day's paper to find out what really happened.

While playing golf a ball barely misses hitting you and sending you to the happy hunting grounds because you didn't hear the "fore" from the players behind you.

At a ball game you "strike-out" with the bases loaded and walk back to be called back to the plate because you slightly "tipped" the ball but didn't hear it. On the next ball you miss it by a mile and wish everyone were stone-deaf as it is no fun striking out twice in a row with the bases loaded.

You watch a football game for ages wondering what the score is before it is finally flashed on the screen.

Up high in the grandstand at the horse races you don't hear reports on how your horse is running and never know he led much of the way. All you know is he came in dead last.

The person next to you in a darkened theater asks you for the time and you almost have to use Braille in order to understand him.

At the movies you laugh aloud when others cry, and cry when others laugh because you don't see things the same way as other people hear

them in the movies.

You play "hide and seek" indoors and the person who is "it" hears your every move and finds you easier than he could find the sun and you wonder how.

You go on vacation trips, visiting many interesting places and pay for guides who tell you practically nothing since you can't understand them. Worse still are the sites that have pre-prepared tapes to explain interesting facts about the beautiful places you are paying to visit.

You wait all year for Santa Claus to come and then when he does, he can't ask you if you've been a good child or not since his beard and whiskers make lip-reading impossible.

You explain to your hearing friends that deaf people can obtain only approximately one out of four words via lip-reading, but that if you get the key words you have a better chance of understanding what was said. You see the words, "cow" and "moon" on the lips and immediately think of the expression, "The cow jumped over the moon." However, the other person might have said something like:

The cow is eating grass under the moon.
or
The cow is looking up at the moon.
or
The cow is making love under the moon.

You happen to be at a raffle drawing when your number is drawn, but you never know it. It could have been worse!!! The prize could have been five hundred dollars, instead of one hundred.